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SUB-COMMITTEE II

CURRENT SITUATION AND TRENDS IN AGRICULTURAL LAND USE IN MARYLAND

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SUMMARY
STATUS AND TRENDS

Farm products -

agriculture comprises 14% of state's gross product
food processing business in Maryland -$2 billion
farm products sold in 1972 - $414.7 million
annual increase per year - 2% or approximately $8 million
farm products to be sold in 1976 - $472 million
farm products to be sold in 1986 - $552 million

Farms and farmland -

number of farms in 1969 - 17,180
number of commerical farms in 1969 - 11,590
expected number of farms in 1986 - 10,500 - average 229 acres
land in farms in 1964 - 3.18 million or approximately 50%
land in farms in 1969 - 2.93 million or approximately 44.3%
land in farms in 1986 - 2.4 million or approximately 38%
will lose approximately 35,000 acres each year
could have more land in urbanization by year 2000 than cropland
prime agricultural land (Class I, II, III) - 3.48 million acres
prime agricultural land lost to urban - 200,000 acres
Piedmont region - 30.3% state land area; prime land, 968,277 acres
Eastern Shore - 34.3% " " " " " 1,571,508
Western Maryland- 15.7% " " " " " 337,760
Southern Md. - 19.7% " " " " " 550,662

Capital - Management

average investment, real estate per farm, 1969 - $104,370
average investment, machinery and equipment per farm, 1969 - $9,775
average investment, livestock per farm, 1969 - $6,348
total expected investment, 1986 - $4.6 billion
average investment per farm, 1986 - $438,000
total number family farms, 1969 - 87%
total number farm corporations - 11.5%
(including family corps)

Labor

average number of workers - 32,000
average number of family farm members, 24,000

CONCLUSIONS

More demand for food from both domestic and foreign markets will maintain higher farm prices. This will result in a continued, viable agricultural economy in Maryland.

While production costs will be higher in the future, it is expected that return on investment, excluding land, will remain above 15%.

Competition for land, labor and capital will be greater from non-agricultural industries. The state can expect to lose 35,000 acres per year of prime agricultural land. Not only does this mean less farms, but loss of one of the state's only renewable natural resources - land. Once paved over, it is lost forever.

Such haphazard, scattered and incompatible development of agriculture and forest land can waste a large percentage of our soil and water resources. While there are laws to protect certain critical areas in our state, there are none which protect our prime agricultural lands.

NEED

A land use policy to protect and preserve the prime agricultural land resources of the state for this and future generations to provide adequate food supplies, taxable open space, recreation, protect watersheds, and a way of life.

III. The Current Situation and Trends in Agricultural Land Use in Maryland.

A. Maryland Agriculture and it's contributions to the economy of Maryland:

Our state's economy is a sophisticated mechanism reflecting the individual and aggregate contributions of agriculture, manufacturing, construction, services, trade, finance, transportation, and government. The total contribution of this economic mechanism is measured as our Gross State Product.

Maryland's Agricultural Complex, as outlined in "Agriculture '76," [1/] is an estimate of the total accounting of the production, processing, and distribution of the food, fiber, and forestry products serving our population (see Table 1). This report will reflect only the contribution of the on-farm production phase. It is estimated that agriculture's (on-farm production) contribution to the Gross State Product will be 2.2 percent in 1976 and 1.7 percent in 1986.

1. Farm Production - The output of farm products sold from Maryland farms in 1972 amounted to more than 400 million dollars (see Table 2). Since 1950, the output of farm products in Maryland, measured in constant prices,/increased at a rate of about 2.4 percent annually, almost double the percent increase for the United States.

   a. Number of farms - In 1969 there were 17,180 farms in Maryland, about 11,590 of which were classified as commercial farms, with an output per farm of more than $2,500. About half of the farms sold more than $5,000 worth of products per farm (See Table 3). By 1986 the number of farms is expected to decline to about 10,500 and the family and hired labor force to 16,000. [1/] Farms will be larger, averaging 229 acres.

1/ "Agriculture 76" Study of Maryland Agriculture, Agricultural Divisions, University of Maryland, 1970.

TABLE 1

HOW DO YOU DESCRIBE A GIANT INDUSTRY? . . . . . THAT'S SPREAD ACROSS THE ENTIRE STATE
. . . . . TOUCHES EVERY CITIZEN AND FAMILY
. . . . REACHES ACROSS THE NATION AND THE WORLD IN THE EXPANDED MARYLAND ECONOMY

Maryland's Agricultural Complex is --

RESOURCES & INPUTS

Raw Materials
Buildings
Land
Livestock
Managers
Services
Credit
Feed
Fertilizer
Fuel
Seed
Equipment
Supplies
Machines
Finance
Labor
Capital
Etc.

PHASES	THE CURRENT SITUATION		In Total	TOTAL AGRICULTURAL COMPL ESTIMATES FOR 1976	1986
Retail Trade	Jobs	63,065	178,332 jobs, about 15% of the total in Maryland	191,900 jobs, still almost 14% of Md.'s total	198,869 jobs, still almost 12% of Md.'s 1/3 larger total
	Businesses	8,668			
	Investment	$876 mil.			
	Sales	$2.132 bil.			
Wholesale Trade	Jobs	13,130	Income flow contribution of $2.289 bil. 14.2% of our gross state product	Income flow contribution of $3.195 bil. still 13.9% of GSP	Income flow contribution of $4.124 bil. still 12.1% of GSP
	Businesses	1,069			
	Investment	$201 mil.			
	Sales	$1.541 bil.			
Processing and Manufacturing	Jobs	58,777	Investment $5.236 bil.	Investment $6.450 bil.	Investment $8.987 bil.
	Businesses	1,024			
	Investment	$979 mil.			
	Sales	$1.829 bil.			
Primary Production Farms Fisheries Forests	Jobs	43,360	Businesses 32,315	Businesses 26,299	Businesses 24,335
	Businesses	21,554			
	Investment	$3.180 bil.			
	Sales	$396 mil.			

TABLE 2

CASH RECEIPTS FROM FARMING, MARYLAND - 1965-1972

(Thousand Dollars)

COMMODITY	1965	1969	1970	1971	1972
All Crops	116.5	120.6	127.3	129.8	130.6
Livestock and Products	212.8	266.9	266.2	266.7	284.0
TOTAL RECEIPTS 1/	329.3	387.5	393.5	396.5	414.6

1/ Excluding Government Payments.

TABLE 3

DISTRIBUTION OF FARMS ACCORDING TO VALUE OF SALES PER FARM, MARYLAND, 1969

Value of sales per farm	Cumulative percent of farms
Less than $250	8.46
Less than $500	12.61
Less than $1,000	19.23
Less than $1,500	25.02
Less than 2,000	30.04
Less than 2,500	33.99
Less than 5,000	48.50
Less than 10,000	61.59
Less than 20,000	73.25
Less than 40,000	86.58
Less than 100,000	96.85

b. Resources used in farm production.

(1) Land in 1969. Farms comprised about 44.3 percent of the total land area of the state in 1969. Crops were harvested on about one out of every 5 acres of land in the state. Farm size in 1969 averaged 163.1 acres with harvested cropland averaging 75.7 acres per farm.

About half of all Maryland farms were less than 100 acres in land per farm which included about 12 percent of the total land in farms(See Table 4).

Based on the Maryland 1969 Census of Agriculture, the average value of land and buildings per farm was $104,370; value per acre averaged $640.

The county with the lowest per acre value is Garrett; the highest is Prince Georges.

(2) Labor - The number of arm workers in Maryland varies from about 20,000 in January to more tha 40,000 in July and August and averages about 32,000. About three quarters of the total number of workers are members of farm families; the rest are hired workers. From 1964 to 1969, farm labor, contract labor, machine hire, and customwork increased by 21.6 percent. Workers on farms man about one-eighth of a million acres of crops and the important livestock enterprices across the state.

(3) Capital - The average capital investment per farm in Maryland during 1969 was estimated to include $104,370 in real

TABLE 4

DISTRIBUTION OF LAND IN FARMS ACCORDING TO ACREAGE PER FARM, MARYLAND, 1969

Acreage per farm	No. of farms	Acres	Cumulative Percent	
			Farms	Land
Less than 10 acres	1,572	6,463	9.1	.23
Less than 50 acres	5,305	108,522	30,88	3.87
Less than 70 acres	6,721	191,140	39.12	6.82
Less than 100 acres	8,570	345,199	49.88	12.31
Less than 140 acres	10,684	593,132	62.19	21.16
Less than 180 acres	12,236	838,456	71.22	29.91
Less than 220 acres	13,416	1,072,765	78.09	38.27
Less than 260 acres	14,213	1,262,585	82.73	45.04
Less than 500 acres	16,239	1,958,158	94.52	69.85
Less than 1,000 acres	16,963	2,442,218	98.73	87.12
Less than 2,000 acres	17,140	2,669,612	99.76	95.23
Total	17,181	2,803,442	100.00	100.00

estate; $9,775 in machinery and equipment and $6,348 in livestock, for a total of $120,493, excluding inventories of feeds and miscellaneous esupplies. Investment per farm on the 11,590 commercial farms included $131,378 in real estate; $12,914 in machinery and equipment and $8,717 in poultry and livestock for a total of $153,009 per farm, excluding investories of feed and supplies. By 1986 total investment is estimated to reach 4.6 billion dollars, about 84 percent of the entire primary production phase. Investment per farm will reach $438,000, with investment per worker expanding to $287,000 including land.

(4) Management - About 87 percent of the commercial farms in 1969 were operated as individual or family organizations; 11.5 percent were operated as corporations including family-owned corporations.

Of all farm operators, 52 percent were full owners; 19 percent were part owners and 29 percent were tenants including managers.

The farm industry will,no doubt, become more complex as scientific and technological changes take place. With more complexity in the production process, the difficulties in decision making will increase with respect to the combination of land, equipment, fertilizer, livestock, and manpower. A new disciple of econometrics for agriculture has developed to permit the determination of low-cost, high-output combinations. Farm management has consequently come to require greater skill and competence.

c. Output of Products - Estimated cash receipts from farm marketings in Maryland were 414.7 million dollars in 1972 and 396.5 million dollars in 1971 at current prices.

(1) Crops - Cash receipts from the sale of crops from Maryland farms were 130.6 million dollars or 31.5 percent of the total cash receipts in 1972 and 129.8 million dollars or 32.7 percent in 1971. (See Table 2).

(2) Livestock - Sales of livestock and livestock products amounted to 284.0 million dollars or 68.5 percent of the total in 1972 and 266.7 million dollars or 67.3 percent of the toal in 1972. (See Table 2).

(3) Future Outlook - Significant growth in the absolute level of cash receipts is expected by 1976 and 1986. (See Figure 1 and Table 5). Cash receipts are expected to increase to over 421 million dollars in 1976 and almost 500 million dollars in 1986. Greatest growth will occur in dairy and poultry products, primarily broilers. Significant increases are expected in food, feed, and oil crops; greenhouse and nursery enterprises; forests and turf grass. Less impressive gains are estimated for meat, animal and vegetables, fruits, with tobacco showing a relative decline.

(4) Location and Rank 2/ - Animal products will continue to provide over 60 percent of Maryland's cash farm receipts at least until 1986. The bulk of milk production, 70 percent in 1972, will continue to be produced in the Piedmont area with only about 20 percent being produced East of the Bay. Broilers and dairy products are tied for the number one and two positions in cash receipts, and are produced almost entirely East of the Bay.

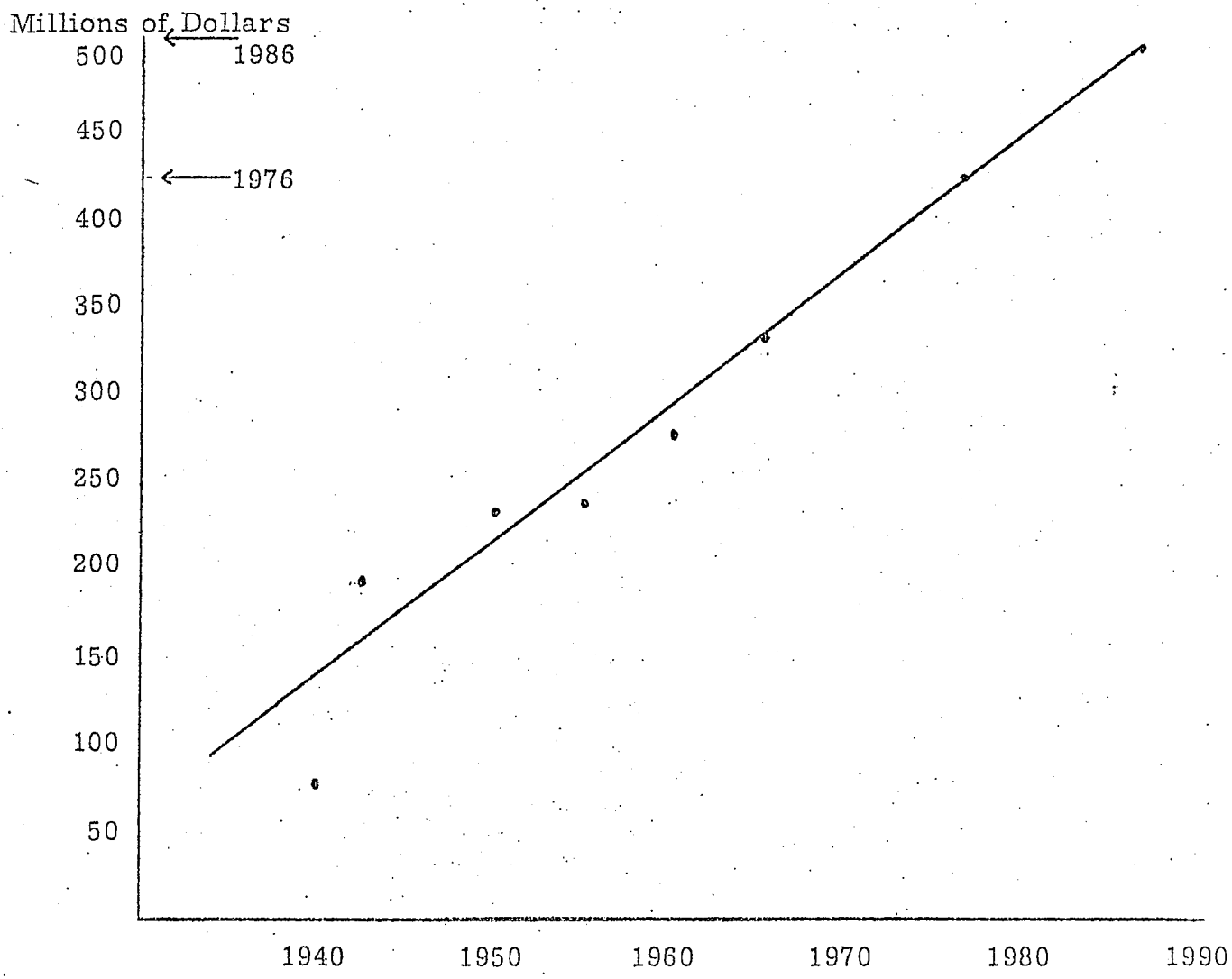
2/ As indicated in Maryland Agricultural Statistics, Annual Summary for 1972.

Ranked third is field crops (corn, soybeans, potatoes, sweet potatoes, mushrooms, hay, wheat and barley), which represents 72 percent of all crops and 16.1 percent of total receipts. Corn, first in field crops, was produced almost entirely in the Piedmont area and the Eastern Shore (representing 51 and 40 percent, respectively). Soybeans, ranking second, had 70 percent of its production on the Eastern Shore. Wheat lags a distant third with 68 percent of the production being in the Piedmont area and 24 percent on the Eastern Shore. Cattle and calves, ranking fourth and representing 8.4 percent of cash receipts, are produced mostly in the Piedmont area.

It appears that the Western Counties of the State will be the major livestock producers with counties east of the Bay being big producers of poultry and field crops. (For detailed information on all commodities see Appendices A through J).

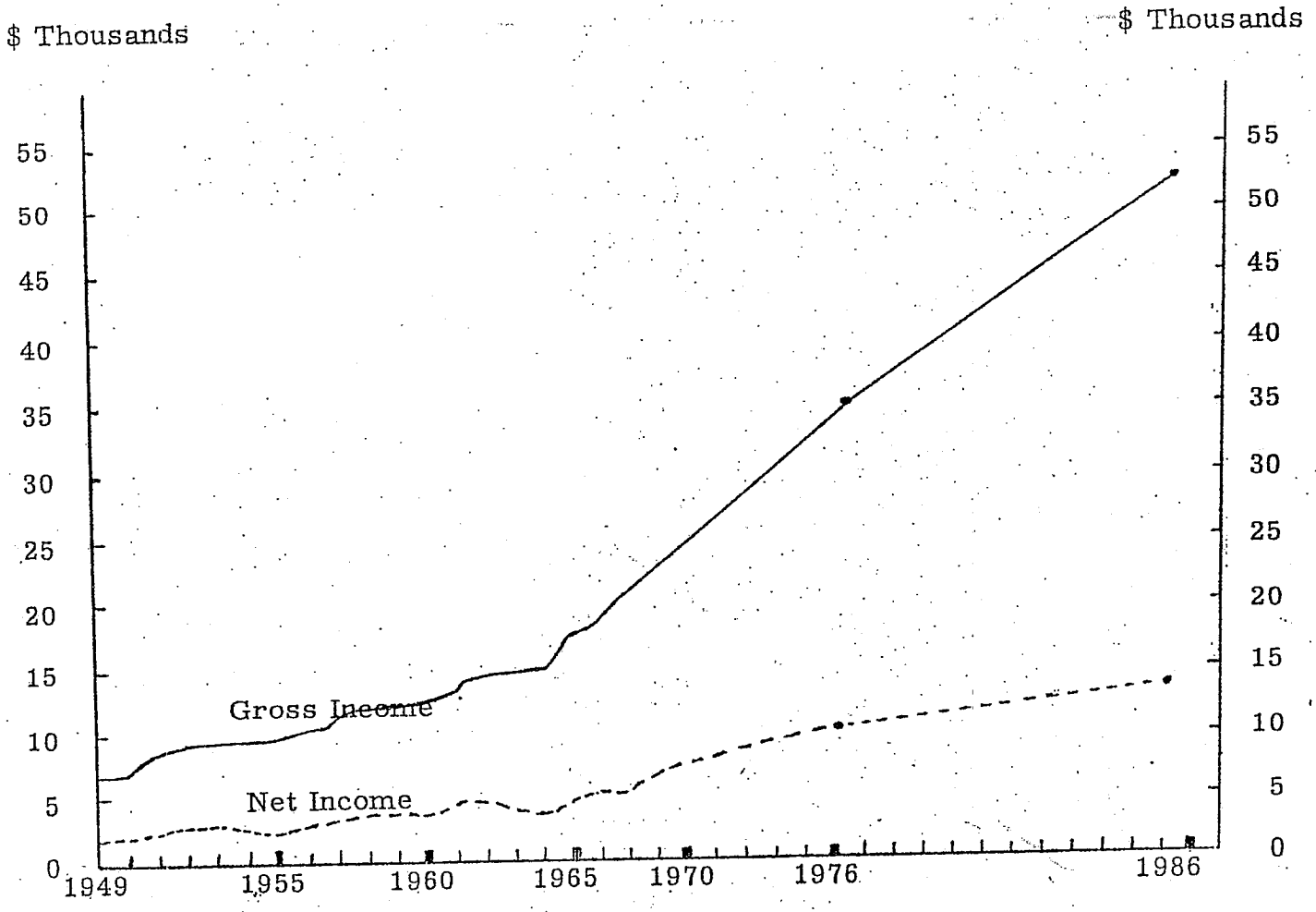
d. Farm Income - Gross farm income, including cash receipts, government payments, value of home consumption, and rental value of farm dwellings (the usual accounting items), totaled 411 million dollars in 1968. It is expected to increase to an estimated 472 million dollars by 1976, and 552 million dollars by 1986. However, the increase in costs of production will continue, and total net income will remain a decreasing proportion of the gross (see Figure 2). Gross income per farm is estimated to increase to almost 53,000 dollars in 1986. Net farm increase will increase from 7,000 dollars in 1972 to almost 13,000 dollars in 1986. Return on investment, excluding land, will remain above 15 percent.

Figure 1. The On-Farm Production Sector of Maryland's Agricultural Complex: Cash Receipts from Farm Products Marketed, 1940-1968, with Projections to 1976 and 1986.



Source: Maryland Agricultural Estimates; Farm Income, State Estimates, U.S.D.A.; and estimates of Sub-Committees II, III, and IV, "Study of Maryland Agriculture."

Figure 2. The On-Farm Production Sector of Maryland's Agricultural Complex: Gross and Net Income Per Farm, 1949-1968, With Estimates to 1976 and 1986.



Source: 1949-1968, U.S.D.A. "Farm Income Situation."
1969-1986, estimated by Subcommittee IV, "Study of Maryland Agriculture."

e. Costs of production - Production cost items purchased; such as feed, fertilizer, hired labor, etc., property taxes and interest paid on mortgages; and an estimated allowance for depreciation on machinery, equipment and buildings, averaged 120.0 thousand dollars, $10.0 thousand dollars and 17.3 thousand dollars per farm in 1972, 1971 and 1970, respectively.

Cost of production reached almost 292 million dollars in 1968 (Tables 5 and 6). These costs are expected to increase to 352 million dollars in 1976 and 417 million dollars in 1986.

Large increases are expected in feed, interest, and depreciation in the years ahead. More purchased inputs will be fed into the on-farm operations.

f. U. S. Agriculture Outlook 3/ - "Production" has replaced "Reduction" as the key word in agricultural planning today and this drastic turn around brings about a lot of questions about possibilities of another period of glut, long range levels of profitability for farm products, feed availability and others. Trends in livestock and crop production and world demand is being used as a base to predict price patterns and from them, project average annual prices.

Agriculture is winding up a boom year. Income estimates seem to rise every month, as commodity prices cling to stratospheric levels. Looking to 1974, it appears farm income will be outstanding, by historical standards, but below the super levels of this season (1973).

Cash receipts from livestock and livestock products will be higher

3/ Doane's Agricultural Report, August 31, 1973, Vol. 36, No. 35-1 "Special Report - 5 Year Ahead Outlook".

in 1974, but not by much. Hogs and cattle, in total will return more income than in 1973. Dairy income could also be some higher, but poultry and eggs are expected to slip.

Question on the crop side largely relates to how many acres will be planted next year under the "all out" production attitude of the government. Set-aside for all crops has been released for production next season. This means there are slightly over 19 million additional acres that supposedly could go into crops in 1974.

It is likely that only 5 to 6 million acres of freed-up land will be planted for various reasons. Some of it is marginal land unsuitable for crop production ---some is tied up in small acreages that won't readily be released to crops --- some will be converted to pasture and forage.

In 1973 40 million acres were released from set-aside, and about 25 million went into crops. Of this 40 million another 5 to 6 million could possibly go into crops in 1974. This would total a potential 10-12 million acres to be planted this coming season due to relaxation of government programs. This will result in increased erosion and sedimentation from agricultural land unless related conservation plans and measures are revised and implemented.

Despite more acres planted, cash crop receipts will be down slightly this coming season, as prices fail to maintain the steam exhibited this past year.

Realized net income in 1974 will probably be in the neighborhood of 21 billion, or a drop of about 15% from what is expected this year. Production expenses will be up again, though estimate is only around 1 percent or less. Labor, fertilizer, taxes,

machinery and equipment will cost more, but cost of feed and replacement livestock should be down.

A big difference, compared with 1973 will be the drop in government payments. In 1972, $4 billion came to farmers from the government - in 1973 the figure will be around $2.9 billion. For 1974, it is expected that direct payments from Uncle Sam will amount to less than $500 million.

The world's demand for livestock feeds is increasing rapidly. So look for fairly high U.S. exports to continue. Grain prices will move down sharply from their record highs, then regain some of the loss as world demand for meat strengthens and various importing countries work toward rebuilding their feed grain stocks.

Production on a whole for chief crops and livestock will continue to increase to at least 1978. However, production costs will also increase and at a proportion that will decrease realized net income.

2. Demand for Farm Products.

The demand for food by consumers changes according to population, income per capita and changes influencing exports to other countries. Demand for food productions, on a pound basis, varies according to total population and demand for exports. As per capita incomes increase, total pounds of food products per person changes little. However, the kinds of qualities of food consumed do vary with per capita incomes. In general, foods consumed by higher income people required more resources (land, labor and capital) per pound of output than lower income people. Thus, there will be increased

Table 5. The primary production phase of Maryland's Agricultural Complex, estimates of cash receipts to producers--1968, 1976 and 1986.

Primary Production Phases	As Reported or Estimated for 1968[1]	Estimates for 1976[2]	Estimates for 1986[2]
	----------Millions of Dollars----------		
On Farm			
Animal Products	236.6	257.0	301.2
Meat Animals	36.7	42.0	50.1
Dairy Products	91.6	96.0	110.1
Poultry and Eggs	105.6	116.0	137.0
Other	2.7	3.0	4.0
Crops, Forest and Nursery	111.1	146.1	173.3
Food, Feed, Oil	42.5	66.0	83.5
Vegetables and Fruits	32.0	32.0	34.0
Tobacco	20.0	20.0	20.0
Greenhouse/nursery	11.9	20.0	26.0
Forest products	1.8	4.5	6.0
Other	2.9	3.6	3.8
Other	12.4	18.3	23.7
Turf grass	3.9	7.8	11.7
Horses and Mules	8.5	10.5	12.0
Total	360.1	421.4	498.2
Commercial Forests[3]	15.0	17.0	20.0
Seafood Landings[4]	16.0	25.0	31.2
TOTAL, Primary Production	391.1	463.4	549.4

[1]Source: On farm data from Farm Income, State Estimates, FIS, Supplement, ERS, USDA, August 1969, reorganized based on sub-committee II reports. Data for turf grass, horses and mules from sub-committee II. See commercial forests and seafood below.

[2]Estimates by Section IV sub-committee based on reports of sub-committees II and III.

[3]Maryland Department of Forests and Parks, Maryland Primary Wood Industry - 1965, James O. Burnett, The Role of the Timber Producer in the Market Structure for Forest Products in Maryland, M.S. Thesis, Department of Agricultural Economics, 1967.

[4]Based on Report of sub-committee on commercial fishing and University of Maryland Misc. Publication 676, November, 1968 - The Commercial Fishing and Seafood Processing Industry of the Chesapeake Bay Area.

Table 6. Comparative income statement estimates for the on-farm production sector of Maryland's Agricultural Complex, 1968, with projections to 1976 and 1986.

Items	1968	1976	1986
	-------Millions of Dollars-------		
Cash Receipts from Farm Marketing[1]	360.1	421.4	498.1
Government Payments	6.8	5.0	5.0
Value Home Consumption	5.0	4.0	3.0
Rental Value Farm Dwellings	39.0	41.1	46.1
Gross Farm Income	410.9	471.5	552.2
Production Costs	-291.7	-351.6	-416.9
Total Net Farm Income	119.2	119.9	135.3
Number of Farms	19,500	13,200	10,500
Gross Income Per Farm	$21,072	$35,720	$52,590
Net Income Per Farm	$6,113	$9,083	$12,886
Net Return on Investment			
Total Investment (%)	4.6	4.0	3.0
Investment Other Than Land (%)	16.3	15.4	15.6

[1]Includes turf grass, horses and mules, but not commercial timber.

Table 7. The on-farm production sector of Maryland's Agricultural Complex, estimates of cost of input items used in producing food, fiber, forest, and related items--1968, 1976 and 1986.

Input Items for Annual Production	Cost Estimates for 1968	1976	1986
	---------Millions of Dollars---------		
Feed	87.70	108.50	136.70
Livestock, including breeding Herds and flocks	23.80	22.20	20.60
Seed	6.52	7.84	9.48
Fertilizer	17.80	24.90	32.90
Lime	2.10	3.28	4.76
Fuel and oil	13.00	15.00	18.00
Repairs and other	20.03	21.00	22.00
Miscellaneous			
Non-real-estate interest	3.80	9.10	12.67
Herbicides	2.99	4.78	5.65
Insecticides	2.18	2.43	2.64
Fungicides	.13	.15	.17
Drugs	4.67	5.43	6.36
Vet. services	1.25	1.25	1.25
Artificial Breeding	.68	.75	.89
Electricity	6.30	6.00	5.80
Custom spray and dusting	.80	1.03	1.20
Other custom work	3.80	4.50	5.50
Hired labor	20.00	20.00	20.00
Taxes	16.20	18.20	21.50
Interest on farm mortgage debt	10.60	22.75	29.58
Rent	4.10	5.50	6.50
Lumber, building materials, hardware, other supplies	17.00	15.00	13.00
Depreciation			
Farm service buildings	10.75	12.50	14.25
Machinery and equipment	15.50	19.50	25.50
	291.70	351.59	416.90

Source: For 1968: Farm Income, State Estimates, FIS 214 Supplement, ERS, USDA, Aug. 1969, reorganized based on detailed data from sub-committee III. Estimates for 1976 and 1986 based on data from sub-committee III.

demands for farm inputs to produce the increased output of higher resources - using food products as per capita incomes rise. According to Clawson[4/], the demand for agricultural land in the United States may not increase much in the next three decades to satisfy national needs. "If the population growth rate is relatively low and farm production is unrestrained by environmental considerations, the area of cropland required in the year 2000 will be nearly the same as the present acreage. Increases in agricultural output per acre will just about offset the increases in total demand of a slowly rising population."

Taking another look, however, at the international picture and using the events that have taken place in 1973, one would have a lot of doubt as to the validity of his reasoning. For example, higher per capita incomes in European countries and Japan have increased their demand for more expensive foods and put them in direct competition with the American consumer. In addition, agricultural export products help to realize a substantially more favorable balance of trade with such industrialized countries as Japan.

Per capita consumption of vegetable oils increased more than 40 percent between 1960 and 1972 while consumption of processed fruits and vegetables increased about 17 percent (Figure 3). Consumption of fresh fruits and begetables and cereal and bakery

4/ Marion Clawson, "The Fruitiness and Flexibilities of Land Resources", National Land Use Policy, a special reprint from the Journal of Soil and Water Conservation, September-October 1972, Vol. 27, Number 5, Pages 195-227.

products declined slightly.

Per capita consumption of poultry increased about 50 percent between 1960 and 1972 and beef and veal increased about 23 percent (Figure 4). Land and other resources required to produce a pound of beef, veal and poultry, for example, are greater than that required to produce a pound of cereal and bakery products. Thus to some extent, current trends in food consumption patterns are toward higher land and other resource-using commodities and away from lower resource-using commodities.

3. Competition of Maryland Agriculture - The competitive aspects of Maryland agriculture has three sides. First, Maryland farms to come extent are competitive with each other for markets and for inputs such as hired labor and purchased inputs. Second, Maryland agricultural businesses compete with non-agricultural businesses and activities for land, labor and capital. Third, Maryland agriculture competes with agriculture of other regions for markets.

   a. Competition among farms - Firms producing homogenous products compete with each other for markets. The number of farms within Maryland is sufficiently large that no single farm can influence the price of the product which it sells by varying the volume it sells. Generally if one farm refused to sell its product for a price below the prevailing "market" price, buyers would seek other sources of supply.

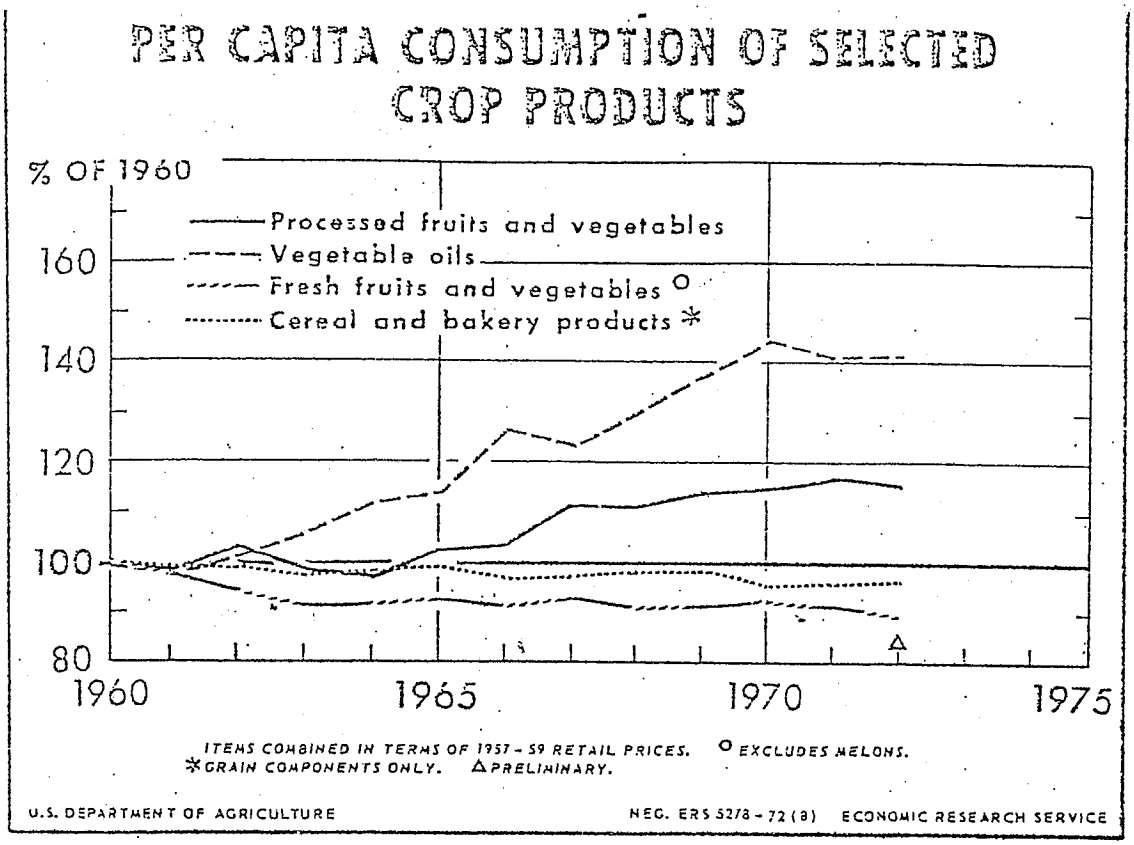


Figure 3

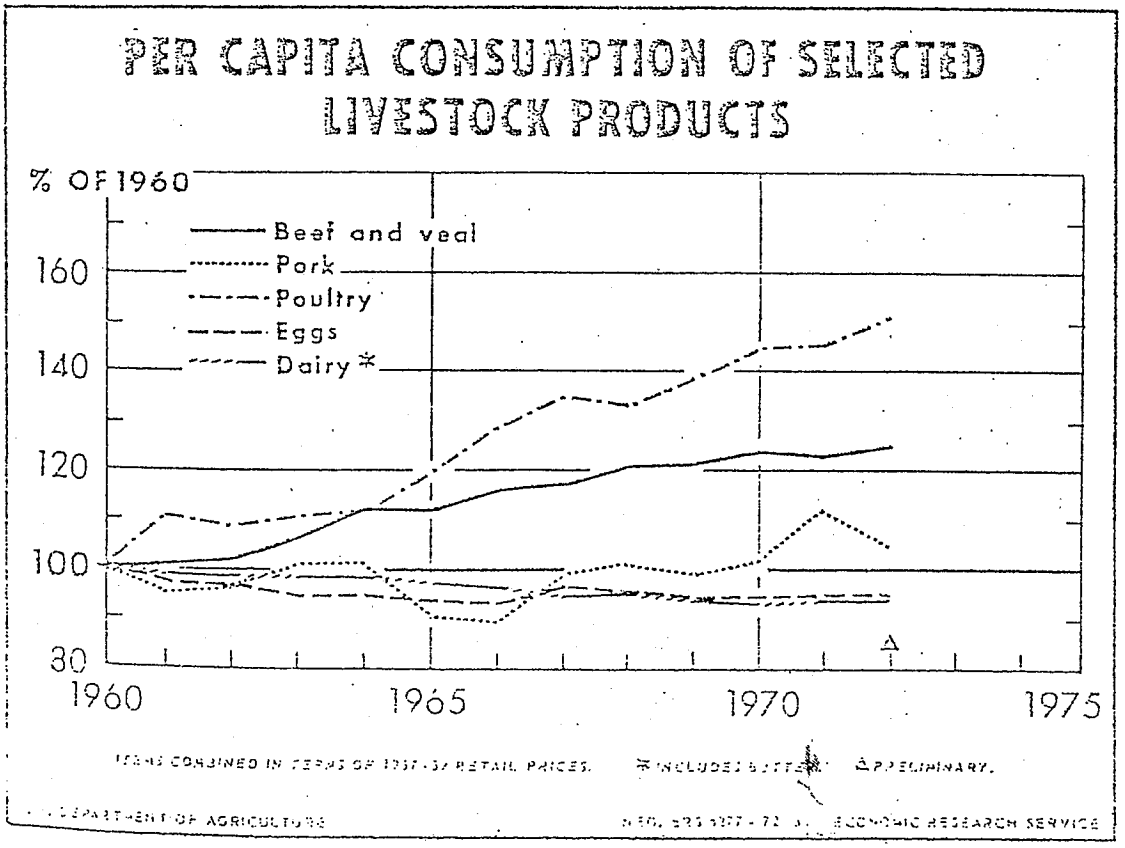


Figure 4

Also, individual farms are forced to purchase inputs at the "Market" price. If an individual farmer refused to pay the market price for goods or service, the seller would seek other outlets.

b. Competition with non-farm businesses - Farmers use some inputs in the same form as non-farm businesses. These include land, labor, capital and management. Generally, the seller of land, for example, would sell the land to the purchaser who offers the highest price. The marginal value of productivity of land, for example, which can be used in either agricultural businesses or non-agricultural business, usually is greater in uses other than agriculture. However, land sellers usually wish to obtain the highest price possible for their land regardless of its future use. Therefore, if land is purchased for agricultural use even though it could be used for other purposes, the price which would have to be paid usually would be greater than its strict agricultural value. Thus, the land used for agriculture is generally that land which is not suitable for other uses due to its location or other characteristics.

c. Interregional Competition - Maryland's physical conditions, including climate, soils and topography are generally suitable for producing every major farm product produced in the United States except citrus fruit and cotton. Even though thousands of farm workers have moved into other lines of work, farm production has increased steadily until one farm worker now provides food for himself and 40 non-farm workers.

Some claim that Maryland farmers cannot produce milk, beef, grains, vegetables and fruit and sell these products in Maryland as cheap as they can be produced and shipped to Maryland from other areas. Although transportation costs from other areas would be higher, they claim that farmers in other areas use cheaper land, pay less for hired labor and/or obtain higher output per unit of input so that the higher transportation costs are offset. Would it be useful to obtain data to make a comparative costs of production and marketing on Maryland farms with the costs of production and marketing the same products on farms located in surplus-producing areas?

B. How much farm land?

1. Number of acres - According to the 1964 Census of Agriculture, the total land area in Maryland farms[5/] stood at more than 3.18 million acres or 50 percent of the state's land area. Up to 1969, this farm acreage had decreased by almost 50,000 acres per year to a total of 2.93 million acres. Although the conversion of farmland to other uses is expected to slow down, projections for 1986 by the University of Maryland's College of Agriculture indicate that the availability of farmland will continue to decrease at an average rate of 35,000 acres per year. Therefore, by 1986 this decrease will bring the total farm acreage to just over 2.4 million acres, which is still 38 percent of the state's 6.3 million acres. The effect of the "all out" production attitude of the government is yet to be seen.

5/ As defined by the Census, this consists primarily of land used for crops and pasture or grazing.

2. Future Land Use Changes[6/] - Expected land use changes between 1967 and 1986 predict that cropland, pasture and forest land will decrease by about 498,000 acres; "other" land will increase by about 138,000 acres; and non-inventory land will increase by about 360,000 acres. The pressures for land use are very intensive in Maryland. In 1967, according to the CNI data, the urban and built-up areas of Maryland alone totaled more than 493,700 acres, including 50,400 in Baltimore City. Considering that federally-owned land (other than cropland) occupied more than 146,000 acres, and water bodies between 2 and 40 acres accounted for nearly 30,000 acres, it is not difficult to account for more than 670,000 acres of land being used in Maryland outside of agriculture and commercial woodland production. By 1986, this category of urban land and federally-owned land is expected to occupy more than one million acres in Maryland. Thus, by 1986 Maryland could have nearly two-thirds as much land in this urban and federal ownership category as in cropland. Most of this increase will stem from urbanization and its attendant necessities, such as highways, shopping centers, etc. The projected average rate of land conversion to these uses over the next 17 years will come close to 18,900 acres per year. The bulk of this land will be converted from acreages now devoted to crops and woodland. It is conceivable that before the year 2000, Maryland could have more land under urbanization that it will have in cropland. With proper land use in guidelines, this possibility could prove to be compatible. Without a comprehensive land use policy, the future could produce an unwanted specter.

6/ The Maryland Soil & Water Conservation Needs Inventory published in 1971

Maryland is endowed with a variety of land within its 6.3 million acre borders. But the prime agricultural land, i.e. the land categorized in the first three U.S.D.A. Capability classes, occupies approximately one-half of this area or roughly 3.48 million acres. Of this prime agricultural land a little more than half, is presently used for cropland. Something close to 200,000 acres of this prime land has already been converted to urban uses. These figures reinforce the necessity of carefully weighing land use decisions.

In summary, most of the non-inventory land (urbanized, federally-owned, water impoundments) increase from 1967 to 1986 will be at the expense of acreage withdrawn from forestry (209,000 acres) and cropland (205,000). A portion of the latter two categories also contribute to the 138,000 acre increase in acreage categorized as "other land" while the balance is maintained by an 84,000 acre decrease in pasture land over the same time span. There is no way to predict the quality of land changing use other than to assume a land use trend from the 1958 to the 1967 data.

C. Where is it located and What is its Capability?

Maryland's four geographical regions[7/], the Piedmont, Eastern Shore, Western Maryland and Southern Maryland, encompass about 6.3 million acres. Each region is different and plays a different role in the agricultural economy. (The data presented on pages 25-26 can be viewed graphically in Appendices K through Q).

7/ Maryland Department of State Planning use seven regions as planning boundaries, table 8 and 9 shows a comparison of land use for both divisions.

1. Piedmont - The Piedmont, representing 30.3 percent of all land in the state, has rolling to steep-sloping soils primarily used for dairying and general farming. Of this, 1,916,588 acres, 32 percent is cropland, 15 percent pasture, 29 percent forest and the remainding 24 percent is classified as "other".

2. Eastern Shore - The Eastern Shore has coastal plain soils and excellent groundwater resources. The nearly level farm land is primarily devoted to corn, soybeans, vegetables, fruits, forest products, with the major enterprise being the poultry industry. Opportunities now exist for the expansion of the swine enterprise in Maryland and particularily in this region because of labor and locally produced feed grains.

   The Eastern Shore land mass is 34.3 percent of the state's total. Major land uses include 41 percent cropland, 2 percent pasture, 41 percent forest, and 16 percent other uses. This area along with the Piedmont accounts for 78 percent of Maryland total cropland.

3. Western Maryland - the smallest of the four regions with 60 percent of its 991,994 acres (15.7 percent) covered by forest, is quite steep and used primarily for timbering and recreation. However, there is a sizable number of dairy and general farms in the region. Neither the Piedmont nor the Western Maryland area is generally considered to have the same abundant groundwater resources as the Eastern Shore and Southern Maryland.

4. Southern Maryland - Approximately one-fifth of the state (19.7 percent) is characterized by a relatively weak economy with an agriculture dependent on tobacco. Tobacco is a labor intensive crop and the shortage of labor is the major factor preventing expansion of tobacco income. However, the Maryland leaf was strengthened considerably

recently and this presents a definite opportunity for additional revenue to accrue in Southern Maryland. The key to realization of this opportunity is to reduce the labor required in tobacco production through experimentation and changes in harvesting techniques, varities and in marketing systems. Other enterprises are grain crops, with some dairying and livestock production.

The land use in this region is 20 percent cropland, 3 percent pasture, 54 percent forest and 23 percent other.

5. Land Capability Class - Under good management, soils in the first four classes are capable of producing adapted plants, such as forest trees and the common cultivated field crops and pasture plants. Soils in classes V, VI, and VII are suited to the use of adapted native plants. Some soils in classes V and VI are also capable of producing specialized crops, such as certain fruits and ornamentals, and even field and vegetable crops under highly intensive management involving elaborate practices for soil and water conservation. Soils in class VIII do not return on-site benefits for inputs of management of crops, grasses or trees.

   The most productive soils are those in classes I, II, and III. However, soils in classes I and II are more easily used for intensive cropping without intensive conservation practices. Table 8 and 9 will show these soils in acres by regions and class. For a more detail definition of all classes see appendix R.

   The interpretation of the Natural Soils Grouping and how they relate to prime agricultural land will be discussed under Section V. "How much agricultural land should be preserved in Maryland?"

TABLE 8 - LAND USE ACRES BY REGIONS, TYPE AND CAPABILITY UNITS 1/

REGION	ACRES	LAND MASS %	CROPLAND %	PASTURE %	FOREST %	OTHER %	LAND CAPABILITY UNITS (Acres) I	II	III	TOTAL I,II,III
Southern Maryland	1,245,262	19.7	20	3	54	23	12,769	342,522	195,371	550,662
Eastern Shore	2,165,121	34.3	41	2	41	16	110,037	676,521	784,950	1,571,508
Piedmont	1,916,588	30.3	32	15	29	24	33,267	574,544	360,466	968,277
Western Maryland	991,994	15.7	18	9	60	13	31,149	159,991	146,620	337,760
TOTAL STATE							187,222	1,753,578	1,487,407	3,428,207

1/ Maryland CNI - Published 1971.

TABLE 9 - LAND USE ACRES BY REGIONS, TYPE AND CAPABILITY UNITS [1/]

REGION	ACRES	LAND MASS %	CROPLAND %	PASTURE %	FOREST %	OTHER %	LAND CAPABILITY UNITS (Acres) I	II	III	TOTAL I,II,III
Western Maryland	991,994	15.7	18	9	60	13	31,149	159,991	146,620	337,760
Frederick	424,961	6.7	4.4	14	31	11	16,672	146,897	109,163	272,732
Baltimore Area	1,392,442	22.8	28	12	33	27	13,802	404,653	215,969	634,424
Suburban Washington	625,864	9.9	25	12	35	28	8,524	154,566	117,746	280,836
Southern Maryland	668,163	10.6	22	3	62	13	7,038	210,950	112,959	330,947
Upper Eastern Shore	1,029,121	16.3	54	3	31	12	69,691	458,615	288,541	816,847
Lower Eastern Shore	1,136,000	18.0	29	1	49	31	40,346	217,906	496,409	754,661
TOTAL STATE							187,222	1,753,578	1,487,407	3,428,207

1/ Maryland CNI - Published 1971.

D. Problems of Farmland Conversions.

Since the turn of the century, many new words and phrases have sprung into existence: Television, cinema, psychedelic, transactional analysis --the list is endless. "Megalopolis" is another of these words which is heard time and time again as population booms and development threatens to swallow land throughout the United States. Maryland is no exception to this trend, and all sectors of the population have expressed alarm over the encroaching influence of urban and suburban development in this State.

Of particular concern is the status of agriculture, and of the farmer, in our increasingly metropolitan society. Certain trends are apparent upon examination of the statistics relating to agricultural land in this state. There has been a marked decrease in acres of agricultural land in Maryland (a 30% loss from 1949 to 1969), accompanied by a decrease in the percentage of land in farms, while a general increase has been noted in the average size of farms, the acreage of irrigated land, and the average farm value of land and buildings per acre. Projections indicate that by the year 2000, the total land in the state in farms will approximate 836,500 acres, or 21% of the state area, a significant decrease from the 44% area occupied by farms in 1969 and 64% acres in agriculture in 1949.

But what is the meaning of these statistics in a broad sense? What implications does the conversion of agricultural land bear for the individual farmer and farmworker, for the citizens of Maryland, and for local and state government. The answers to these questions are not simple, for three complex topics of concern must be taken into consideration: fiscal and economic, social, and environmental.

1. Fiscal and economic. - The three previously mentioned groups are most drastically affected by the fiscal and economic implications of conversion of agricultural land. It has been conjectured that the rapidly increasing value of farm land per acre is a major factor in the decrease of farm acreage; in fact, projections demonstrate that, should the trend continue, the agricultural land value per acre will approach $1,550 per acre by the year 2000, as compared to a cost of $640 per acre in 1969, disregarding the impact of inflation. The farmer, particularly the small farmer, cannot help but to be tempted by the profit to be made by the sale of his land, especially when he is struggling merely to keep his head above water in competition with the huge farming conglomerates prevalent today. In addition, the cost of agricultural land is far less than the cost of suburban land; hence, developers find it economically expedient to pursue a leap-frog pattern of development and to purchase the less expensive farm lands. These are direct causes for conversion of agricultural land. Less direct are such factors as the lure of the cities, particularly for young people in rural areas (not only from this State but from the entire nation), speculation in real estate, the dearth of many modern services and conveniences in agricultural areas, and the low income of the majority of those involved in farming activities.

   At the present time, agriculture and agribusiness provide an economic livelihood for many Marylanders through employment in food and fiber processing, wholesaling, and retailing. Services and supplies and equipment needed to sustain the agricultural complex create additional

employment and business opportunities.

From Maryland's 19,500 farms come produce values at close to $40 million annually. Over 8 percent of the State's manufacturing working force is employed in the $2 billion food processing industry. Nearly 200,000 Marylanders receive wages of $2.289 billion from agriculture and agribusiness. In fact, agriculture constitutes approximately 14% of the Gross State product. It is clearly a necessary and integral element of the Maryland economy, for if the conversion of agricultural land undermines this industry, it may result in unemployment within this sector of the economy and depending on the nature of the new use may cause a general decrease in the wealth of the State.

Additionally, the problem of poverty in this country is severely aggravated by conversion of agricultural land. The labor pool involved in farming activities (i.e., the farm workers) is forced to find some other livelihood and, in the majority of cases, move to the cities and strain the already abundant unskilled labor force there. "The People Left Behind," a report by the President's Advisory Commission on Rural Poverty, explains:

> "The total number of rural poor would be even larger than 14 million had not so many of them moved to the city. They made the move because they wanted a job and a decent place to live. Some have found them. Many have not. Many merely exchanged life in a rural slum for life in an urban slum, at exorbitant cost to themselves, to the cities, and to rural America as well."

The impoverished in this State -- urban poor as well as rural-- are affected by the conversion of agricultural land; however, the fiscal consequences of this conversion impact Maryland government and hence, all of the taxpaying citizens of the State. When disorganized and disorderly growth and development occur in this State, as in the case of sprawling development, demands are generated for both public facilities and services that cannot be optimized either by cost or by location. The financial demands on the State, and, consequently, on the citizens of Maryland, for sewage treatment facilities, open space, transportation, and health and education facilities, to name a few, increase disproportionately with excessive conversion of agricultural land. Further, it is commonly acknowledged that continued leapfrog and haphazard development will cause even higher requests for facilities and services. The fiscal and economic issues in relation to conversion of agricultural land are actually intimately related. Although the drain on monetary resources seems to be primarily governmental, and hence fiscal, in actuality, the State funds are provided by the individual taxpayers. Any fiscal expenditure in the end becomes a problem in economics, for the cost is borne by the individual pocketbook.

2. Social. - The social implications of conversion of agricultural land are intimately related to the fiscal and economic aspects of of this issue. There is no doubt that a minimum standard of living should exist for all of the citizens of Maryland. Yet the social services supplies to small farmers and farm workers,

particularly in the field of education, may place them at an extreme disadvantage when conversion of farm lands forces them into the cities. In addition, farming is a way of life that should be open to citizens as an integral part of their freedom of choice.

3. Environmental. - Environmental quality is of primary importance as well when discussing conversion of agricultural land. The issues of open space, outdoor recreation, and water supply come to the foreground in this context.

Overcrowded metropolitan centers and rapidly growing suburbs, together with increased leisure time, point to a critically mounting need for outdoor recreational opportunities. Agricultural land may serve a dual purpose in this context. State parks can satisfy some of this need, but much of the hunting, fishing, and scenic needs may best be met through the maintenance of a compatible stewardship of agricultural land. Such a properly managed program keeps land on a taxpaying basis and provides multiple benefits in food and fiber production along with recreation. Maryland is fortunate to have magnificent scenic beauty which not only has an aesthetic value, but attracts sportsmen and tourists who make a sizeable contribution to an area's economy.

In terms of water supply, it has been commonly acknowledged that Maryland's farm and forest resources are invaluable in the preservation of undeveloped watersheds. A source of freshwater is the farm and forest watershed, filtering rainfall through the soil and storing it in natural underground reservoirs for use. Daily demands on water are growing rapidly, and haphazard conversion of agricultural land

increases the threats of flooding, siltation, and other sources of loss and contamination of water, which threaten the adequacy of our present water supply. In addition, phenomena such as flooding may pose a great danger to life and property. Conversion also endangers plant life which, in addition to aiding in the prevention of soil erosion, has an equally important role as a major contributor of oxygen to the atmosphere.

Finally, it is essential to realize that important agricultural land is a basic raw material which man can shape and use for any purpose. Once the topsoil is removed and concrete or asphalt is poured, this land is permanently removed from food and fiber production. Moreover, it is no longer filtering rainfall or fostering the growth of oxygenating plant life. It no longer is a part of man's natural environment. Certainly not all agricultural or forest land remaining in Maryland can or should be preserved for agricultural use, but the finality of converting an acre from agriculture to other uses deserves serious consideration. Excessive and wasteful conversion of farmland and forest land into highway rights-of-way, parks, housing developments, and other uses should be avoided. Scattered and incompatible development of agriculture and forest land can waste a large percentage of our soil and water resources.

E. Present Laws and Regulations Relating to Land Use in Maryland.

Recently there has been a great deal of interest at the State and National levels of government in the development and passage of land use legislation. While no positive action has been taken to date, there

every reason to believe that enactment of land use regulations at the National and State level will be a reality in the near future. One of the features of such legislation will be to identify areas of critical concern --- including prime and unique agricultural land. This new legislation will provide for more participation in land use planning and regulation of land by state government. Historically, the states delegated the right to develop and regulate land use policies to local government. This is generally achieved through the police power, although the right of eminent domain, taxation and spending power have considerable impact on the use of land.

In recent years the police power has been used with increasing frequency to guide and regulate the use of land. While undefinable in precise terms, this power can be broken down into five general categories: Public safety, health, morals, convenience and welfare. Recognizing social overlap, erosion and sediment controls, water management control, and sub-division regulations would be covered under safety. Water and sewage facilities and mosquito control programs are covered by public health. Zoning regulations and regulations of public transportation come under purview of public convenience.

These powers are utilized also by state government to guide a wide range of land uses.

The Department of Natural Resources, for example, has extensive authority to regulate land use. Some of these authorities provide programs for the control of erosion and sediment, use of private wetlands, use of State water and discharges into State waters, floodplains to 50 year frequency storm, licenses for forestry products businesses, issuance of licenses for mining, regulation of mining and issuances of permits

for drilling of gas and oil. (See Appendices R & S for more complete explanation).

The other principal department with authority to regulate land use is the Department of Health and Mental Hygiene. This department is responsible for approving county plans for water supply, sewerage, and solid waste disposal systems, as well as issuing permits for their construction. This Department also assumes general responsibility for air quality control which can affect land use decisions. Other miscellaneous controls over which the State can exert authority to regulate use of land are: airports, state roads, shore erosion and wells drilling. Other indirect authorities affecting land use are those lands owned by the state -- wildlife management areas, state park systems, state forests, natural environment areas and state wildlands.

There are also many areas of influence which deal with cooperative grants in aid to subdivisions for the acquisition and development of recreational areas and facilities, cooperative programs, extension services and other planning, financial and advisory assistance. Examples include: open space program, drainage district fund program, the Department of State Planning, the State Soil Conservation Committee, the State Environmental Service, Maryland Environmental Trust, the Maryland Industrial Development Financing Authority; and others.

APPENDIX A --MILK: Production by counties, Maryland, 1967-72

County	1967	1968	1969	1970	1971 1/	1972 2/
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Allegany	7.7	7.6	7.0	7.0	6.5	6.5
Garrett	64.0	64.7	70.0	70.0	69.5	69.5
Baltimore	66.0	64.7	66.0	61.0	60.0	59.0
Carroll	177.0	193.3	204.0	217.0	217.5	216.0
Cecil	76.0	72.8	73.0	78.0	78.0	77.0
Frederick	410.0	418.9	436.0	432.0	435.5	436.0
Harford	138.0	134.5	133.0	127.5	125.5	122.5
Howard	46.0	46.5	43.5	38.0	39.0	38.5
Kent	70.0	68.8	69.0	74.5	74.0	74.5
Montgomery	90.0	92.0	98.0	93.0	89.5	86.0
Queen Annes	81.0	70.9	64.0	55.0	54.5	53.5
Washington	172.0	180.0	181.0	183.0	190.0	192.5
Anne Arundel	8.5	7.9	7.5	6.5	6.0	5.5
Calvert	1.0	1.0	1.0	1.0	1.0	.5
Charles	2.9	2.8	2.5	2.0	1.5	1.0
Prince Georges	4.0	3.4	3.2	2.0	2.0	1.5
St. Marys	4.0	3.6	3.6	3.5	4.0	3.5
Caroline	40.0	40.5	45.7	51.5	53.0	51.0
Dorchester	10.4	10.1	9.0	7.5	7.0	6.5
Somerset	7.0	6.9	6.1	5.5	5.0	4.5
Talbot	30.0	29.0	30.0	34.0	33.5	32.0
Wicomico	2.0	1.9	1.9	1.5	1.0	1.0
Worcester	8.5	8.2	8.0	9.0	10.5	9.5
East of Bay 3/	324.9	309.1	306.7	316.5	316.5	309.5
West of Bay 4/	1,191.1	1,220.9	1,256.3	1,243.5	1,247.5	1,238.5
STATE	1,516.0	1,530.0	1,563.0	1,560.0	1,564.0	1,548.0

1/ Revised. 2/ Preliminary.

3/ Cecil, Kent, Queen Annes, Caroline, Dorchester, Somerset, Talbot, Wicomico and Worcester.

4/ Allegany, Garrett, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery, Washington, Anne Arundel, Calvert, Charles, Prince Georges and St. Marys.

APPENDIX B

--Commercial broilers: Production and value, Maryland, 1967-72

Year	Number produced	Average liveweight	Pounds produced	Average price per pound	Value 1/
	Thousands	Pounds	Thousands	Cents	1,000 dollars
1967	151,032	3.8	573,922	14.5	83,219
1968	157,887	3.8	599,971	15.5	92,996
1969	174,274	3.9	679,669	16.6	112,825
1970 2/	187,137	3.9	729,834	14.9	108,745
1971 2/	180,837	3.9	705,264	14.7	103,674
1972 2/ 3/	177,247	3.9	691,263	15.7	108,528

1/ Includes value of consumption in households of producers which is less than 1 percent of total production.
2/ Beginning in 1970 estimates are changed to December 1 through November 30 marketing year basis.
3/ Preliminary.

APPENDIX C

--Corn: Acreage planted; and acreage, yield and production for grain, by counties, Maryland and Delmarva, 1970-72

State and County	1970				1971				1972 1/			
	Acres planted for all purposes	For grain			Acres planted for all purposes	For grain			Acres planted for all purposes	For grain		
		Acres harvested	Yield per acre	Production		Acres harvested	Yield per acre	Production		Acres harvested	Yield per acre	Production
MARYLAND	1,000	1,000	Bushels	1,000 bushels	1,000	1,000	Bushels	1,000 bushels	1,000	1,000	Bushels	1,000 bushels
Allegany	1.7	1.2	75.8	91	1.7	1.4	79.3	111	1.7	1.1	79.1	87
Garrett	7.4	3.6	86.7	312	7.5	3.4	74.1	252	7.6	2.7	80.7	218
Baltimore	19.0	15.6	92.8	1,447	18.0	15.5	77.0	1,194	17.5	14.0	76.7	1,074
Carroll	52.0	42.1	86.7	3,650	59.0	46.6	80.0	3,728	51.0	35.2	79.7	2,806
Cecil	27.0	22.7	81.6	1,853	28.0	22.4	70.1	1,571	24.6	17.3	83.8	1,449
Frederick	46.7	24.0	80.6	1,935	53.8	24.2	69.1	1,673	53.0	20.7	74.7	1,546
Harford	23.0	19.5	90.7	1,769	24.0	18.5	74.1	1,370	25.0	17.5	91.8	1,607
Howard	11.5	9.2	77.6	714	11.5	9.3	72.2	671	10.7	8.3	77.7	645
Kent	47.5	43.5	75.6	3,289	43.0	39.6	71.1	2,816	40.0	36.8	84.8	3,120
Montgomery	17.5	11.7	78.6	920	20.0	15.2	65.2	991	17.4	13.2	88.8	1,172
Queen Annes	58.0	55.2	82.7	4,563	67.0	59.7	71.1	4,246	52.0	47.3	73.7	3,485
Washington	29.6	18.5	76.6	1,417	30.5	16.8	52.3	879	32.0	15.7	72.7	1,141
Anne Arundel	9.4	7.8	64.5	503	10.0	8.0	55.4	443	9.4	7.6	68.7	522
Calvert	5.4	5.1	60.4	308	5.7	5.3	51.3	272	6.6	5.9	72.7	429
Charles	9.5	8.9	74.6	664	11.0	10.2	65.2	665	10.2	9.5	86.8	825
Prince Georges	7.6	6.5	64.5	419	8.0	7.2	47.4	341	6.4	5.2	80.8	420
St. Marys	11.7	11.2	58.5	655	10.6	9.6	59.3	569	9.6	8.9	78.8	701
Caroline	33.0	30.3	77.6	2,352	34.7	31.4	51.4	1,613	29.0	25.5	72.7	1,853
Dorchester	45.0	43.8	97.8	4,283	49.0	48.0	84.0	4,030	40.0	38.4	92.8	3,563
Somerset	17.0	16.5	95.8	1,580	17.0	16.8	90.9	1,527	17.8	17.1	90.8	1,553
Talbot	39.0	36.7	89.7	3,293	40.0	37.6	83.0	3,120	37.0	32.9	83.8	2,756
Wicomico	28.5	28.0	79.6	2,230	29.0	28.7	76.1	2,183	28.0	25.8	70.7	1,823
Worcester	40.0	39.4	84.7	3,336	41.0	40.6	71.1	2,887	37.5	36.4	72.7	2,645
East of Bay 2/	335.0	316.1	84.7	26,779	348.7	324.8	73.9	23,993	305.9	277.5	80.2	22,247
West of Bay 3/	252.0	184.9	80.1	14,804	271.7	191.2	68.8	13,159	258.1	165.5	79.7	13,193
STATE	587.0	501.0	83.0	41,583	620.0	516.0	72.0	37,152	564.0	443.0	80.0	35,440
DELMARVA	547.1	517.8	80.8	41,826	578.2	537.6	66.2	35,614	510.9	465.0	79.3	36,885

1/ Preliminary.
2/ Cecil, Kent, Queen Annes, Caroline, Dorchester, Somerset, Talbot, Wicomico and Worcester.
3/ Allegany, Garrett, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery, Washington, Anne Arundel, Calvert, Charles, Prince Georges and St. Marys.

APPENDIX D

--Soybeans: Acreage, yield and production by counties, Maryland and Delmarva, 1970-72

State and County	1970			1971			1972 1/		
	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production
	1,000	Bushels	1,000 bushels	1,000	Bushels	1,000 bushels	1,000	Bushels	1,000 bushels
MARYLAND									
Allegany	---	---	---	---	---	---	---	---	---
Garrett	---	---	---	---	---	---	---	---	---
Baltimore	.5	28.0	14.0	.4	20.0	8.0	.5	20.0	10.0
Carroll	.4	25.0	10.0	.3	26.7	8.0	.4	25.0	10.0
Cecil	7.0	25.0	175.0	9.5	29.6	281.0	15.0	25.7	385.0
Frederick	---	---	---	---	---	---	---	---	---
Harford	1.1	26.4	29.0	1.1	30.9	34.0	1.1	22.7	25.0
Howard	---	---	---	---	---	---	---	---	---
Kent	13.0	24.0	312.0	17.5	31.9	558.0	21.0	24.6	517.0
Montgomery	.2	25.0	5.0	.2	25.0	5.0	.2	20.0	4.0
Queen Annes	22.0	21.0	462.0	19.0	27.6	525.0	30.0	23.6	708.0
Washington	---	---	---	---	---	---	---	---	---
Anne Arundel	1.0	21.0	21.0	.9	25.6	23.0	.8	20.0	16.0
Calvert	.8	22.5	18.0	.8	28.8	23.0	.8	22.5	18.0
Charles	2.1	21.9	46.0	2.9	23.4	68.0	4.3	23.5	101.0
Prince Georges	2.4	22.1	53.0	2.9	27.6	80.0	2.4	23.8	57.0
St. Marys	5.5	21.1	116.0	6.5	24.5	159.0	7.5	23.6	177.0
Caroline	36.0	23.0	829.0	37.0	30.7	1,136.0	37.5	27.7	1,039.0
Dorchester	33.0	27.0	892.0	35.5	32.7	1,162.0	37.0	30.1	1,115.0
Somerset	14.0	25.0	350.0	16.0	29.7	475.0	17.0	29.8	506.0
Talbot	21.0	23.0	484.0	18.0	31.7	571.0	23.5	29.7	699.0
Wicomico	31.0	24.0	745.0	28.0	30.7	859.0	29.0	27.7	803.0
Worcester	22.0	25.0	551.0	23.5	26.6	625.0	25.0	25.6	641.0
East of Bay 2/	199.0	24.1	4,800.0	204.0	30.4	6,192.0	235.0	27.3	6,413.0
West of Bay 3/	14.0	22.3	312.0	16.0	25.5	408.0	18.0	23.2	418.0
STATE	213.0	24.0	5,112.0	220.0	30.0	6,600.0	253.0	27.0	6,831.0
DELMARVA	391.0	22.4	8,748.0	395.9	28.9	11,431.4	435.0	26.2	11,382.0

1/ Preliminary.
2/ Cecil, Kent, Queen Annes, Caroline, Dorchester, Somerset, Talbot, Wicomico and Worcester.
3/ Baltimore, Carroll, Harford, Montgomery, Anne Arundel, Calvert, Charles, Prince Georges and St. Marys.

APPENDIX E

--Wheat: Acreage, yield and production by counties, Maryland and Delmarva, 1970-72

State and County	1970			1971			1972 1/		
	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production
	1,000	Bushels	1,000 bushels	1,000	Bushels	1,000 bushels	1,000	Bushels	1,000 bushels
MARYLAND									
Allegany	.5	32.0	16.0	.4	32.5	13.0	.4	27.5	11.0
Garrett	.7	30.0	21.0	.8	30.0	24.0	.8	27.5	22.0
Baltimore	4.2	36.7	154.0	4.0	35.3	141.0	3.9	35.1	137.0
Carroll	12.6	31.7	399.0	12.0	32.3	387.0	11.7	35.0	409.0
Cecil	5.6	39.6	222.0	5.5	39.3	216.0	5.8	40.9	237.0
Frederick	11.0	32.2	354.0	11.5	32.3	371.0	11.8	30.2	356.0
Harford	4.0	37.3	149.0	4.2	40.2	169.0	3.5	34.0	119.0
Howard	2.7	33.7	91.0	2.4	38.3	92.0	2.6	30.0	78.0
Kent	7.5	45.6	342.0	7.3	51.8	378.0	8.0	42.8	342.0
Montgomery	4.5	35.6	160.0	5.3	40.4	214.0	5.6	34.1	191.0
Queen Annes	11.6	40.6	471.0	13.0	49.4	642.0	12.7	40.8	518.0
Washington	7.3	31.6	231.0	7.8	30.3	236.0	7.1	32.1	228.0
Anne Arundel	.6	26.7	16.0	.7	30.0	21.0	.7	25.7	18.0
Calvert	.6	28.3	17.0	.6	33.3	20.0	.8	23.8	19.0
Charles	2.0	33.5	67.0	2.5	35.2	88.0	2.8	33.9	95.0
Prince Georges	2.0	24.0	48.0	2.5	28.4	71.0	2.1	27.1	57.0
St. Marys	2.7	31.9	86.0	2.8	32.1	90.0	3.0	28.3	85.0
Caroline	8.0	42.6	341.0	8.5	47.4	403.0	9.2	34.0	313.0
Dorchester	7.4	41.5	307.0	7.2	46.4	334.0	6.6	35.0	231.0
Somerset	.3	36.7	11.0	.3	36.7	11.0	.4	35.0	14.0
Talbot	8.8	41.6	366.0	8.1	46.3	375.0	9.8	35.0	343.0
Wicomico	.2	40.0	8.0	.3	36.7	11.0	.4	40.0	16.0
Worcester	.2	40.0	8.0	.3	43.3	13.0	.3	36.7	11.0
East of Bay 2/	49.6	41.9	2,076.0	50.5	47.2	2,383.0	53.2	38.1	2,025.0
West of Bay 3/	55.0	32.7	1,809.0	57.5	33.7	1,937.0	56.8	32.1	1,825.0
STATE	105.0	37.0	3,885.0	108.0	40.0	4,320.0	110.0	35.0	3,850.0
DELMARVA	72.9	41.8	3,046.1	78.5	45.8	3,598.7	82.6	36.3	2,999.3

1/ Preliminary. 2/ Cecil, Kent, Queen Annes, Caroline, Dorchester, Somerset, Talbot, Wicomico and Worcester. 3/ Allegany, Garrett, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery, Washington, Anne Arundel, Calvert, Charles, Prince Georges and St. Marys.

APPENDIX F

Tobacco: Acreage, yield and production, by counties, Maryland, 1970-72

County	1970			1971			1972 1/		
	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production	Acres harvested	Yield per acre	Production
	1,000	Pounds	1,000 pounds	1,000	Pounds	1,000 pounds	1,000	Pounds	1,000 pounds
Anne Arundel	5.0	1,090	5,450	5.1	1,040	5,304	4.9	920	4,508
Calvert	4.9	1,050	5,145	5.0	980	4,900	4.8	970	4,656
Charles	5.6	1,200	6,720	5.7	1,134	6,464	5.5	1,065	5,856
Prince Georges	5.1	1,000	5,100	5.0	1,030	5,150	4.8	950	4,560
St. Marys	6.4	1,096	7,015	6.2	1,010	6,262	6.0	1,070	6,420
STATE	27.0	1,090	29,430	27.0	1,040	28,080	26.0	1,000	26,000

1/ Preliminary.

APPENDIX G

--Commercial vegetables, melons and strawberries:
Total harvested acreage, by counties,
Maryland, 1971 and 1972

County and area	Acres harvested					
	Fresh market		Processing		Total	
	1971	1972 1/	1971	1972 1/	1971	1972 1/
	Acres	Acres	Acres	Acres	Acres	Acres
Lower Eastern Shore						
Dorchester	1,520	1,010	4,030	4,610	5,550	5,620
Somerset	970	900	1,830	1,560	2,800	2,460
Wicomico	4,270	3,970	2,600	3,260	6,870	7,230
Worcester	130	570	4,190	4,050	4,320	4,620
Total	6,890	6,450	12,650	13,480	19,540	19,930
Central and Upper Eastern Shore						
Caroline	1,070	960	5,200	4,940	6,270	5,900
Cecil	60	60	1,870	1,790	1,930	1,850
Kent	800	870	4,940	5,290	5,740	6,160
Queen Annes	90	80	4,930	5,410	5,020	5,490
Talbot	30	20	2,700	1,740	2,730	1,760
Total	2,050	1,990	19,640	19,170	21,690	21,160
West of Bay						
Allegany	10	10	---	---	10	10
Garrett	2/	2/	2/	2/	960	1,020
Baltimore	1,900	1,990	3,310	3,030	5,210	5,020
Carroll	50	50	930	1,150	980	1,200
Frederick	260	220	3,570	3,070	3,830	3,290
Harford	130	130	2,790	3,350	2,920	3,480
Howard	2/	2/	2/	2/	90	170
Montgomery	90	100	1,530	1,840	1,620	1,940
Washington	2/	2/	2/	2/	190	510
Anne Arundel	300	260	---	---	300	260
Calvert	10	20	---	---	10	20
Charles	10	10	---	---	10	10
Prince Georges	180	180	---	---	180	180
St. Marys	2/	2/	2/	2/	750	760
Total	3,190	3,170	13,870	14,700	17,060	17,870
STATE 2/	12,130	11,610	46,160	47,350	58,290	58,950

1/ Preliminary.

2/ State totals include estimates of vegetables for fresh market and processing in Allegany, Calvert, Charles, Garrett, Howard, St. Marys, and Washington counties, which have been combined to avoid disclosing operations of individual producers.

APPENDIX H

Commercial vegetables, melons and strawberries for fresh market and processing: Harvested acreage of selected crops in selected counties, Maryland, 1971 and 1972

Year and County	Snap beans	Sweet corn 1/	Straw-berries	Tomatoes	Water-melons	Other	Total
	Acres	Acres	Acres	Acres	Acres	Acres	Acres
1971							
Baltimore	2,420	760	60	370	30	1,570	5,210
Caroline	180	2,040	90	320	230	3,410	6,270
Dorchester	420	940	30	1,180	650	2,330	5,550
Kent	540	1,680	2/	2/	2/	3,520	5,740
Wicomico	2,130	2/	70	380	2,610	1,680	6,870
Queen Annes	2/	3,250	2/	220	2/	1,550	5,020
Somerset	810	2/	150	1,270	50	520	2,800
Worcester	960	2/	10	460	50	2,840	4,320
1972							
Baltimore	2,630	440	60	390	30	1,470	5,020
Caroline	130	1,620	60	340	200	3,550	5,900
Dorchester	420	1,340	30	1,250	560	2,020	5,620
Kent	500	1,870	2/	2/	2/	3,790	6,160
Wicomico	2,480	2/	70	550	2,430	1,700	7,230
Queen Annes	2/	3,710	2/	180	2/	1,600	5,490
Somerset	870	2/	140	930	20	500	2,460
Worcester	1,850	2/	10	470	60	2,230	4,620

1/ Sweet corn for processing only. Sweet corn for fresh market estimates discontinued. 2/ Included in "Other". 3/ Preliminary.

APPENDIX I

--Cash receipts from farming, Maryland, 1969-71

Commodity	1969 1/	1970 1/	1971 2/
	Thousand dollars	Thousand dollars	Thousand dollars
ALL CROPS	120,603	127,313	129,841
Corn	28,075	38,056	31,618
Tobacco	22,664	21,105	23,123
Soybeans	15,176	13,520	19,304
Wheat	4,522	4,899	5,189
Apples	4,118	3,752	3,904
Tomatoes	3,586	4,002	3,411
Hay	2,428	2,381	2,746
Cucumbers	2,688	2,411	2,486
Barley	1,801	1,545	2,019
Snap beans	2,032	2,459	2,013
Peaches	1,504	2,052	1,870
Sweet corn	1,934	1,895	1,600
Asparagus	1,177	1,122	1,341
Sweetpotatoes	1,217	1,054	1,184
Green peas	1,516	1,101	1,082
Mushrooms	871	1,027	1,027
Watermelons	1,340	1,430	1,019
Potatoes	763	783	795
Strawberries	504	524	645
Spinach	827	622	590
Cantaloups	269	273	323
Lima beans	412	175	289
Other vegetables 3/	3,132	2,893	3,168
Other field crops 4/	891	755	877
Other fruits 5/	486	429	422
Total field crops 6/	78,408	85,125	87,832
Total vegetables and melons 7/	18,913	18,383	17,322
Total fruit 8/	6,612	6,757	6,841
Forest products 9/	4,123	4,123	4,254
Greenhouse and nursery	12,547	12,925	13,542
LIVESTOCK AND PRODUCTS	266,866	266,211	266,696
Broilers	114,060	107,110	103,719
Dairy products	96,426	100,732	103,540
Cattle and calves	28,396	31,338	33,947
Eggs	13,757	13,994	11,979
Hogs	10,969	10,084	10,562
Farm chickens	722	758	703
Honey	400	311	293
Turkeys	413	204	253
Sheep and lambs	243	249	219
Wool	48	51	36
Other 10/	1,432	1,380	1,445
All commodities	387,469	393,524	396,537
Government payments	8,602	7,986	6,307
Total receipts	396,071	491,510	402,844

1/ Revised. 2/ Preliminary. 3/ Beets, broccoli, cabbage, kale, peppers, and others. 4/ Rye, oats, lespedeza seed, red clover seed, popcorn, and miscellaneous crops. 5/ Miscellaneous fruits, berries, and nuts. 6/ Includes potatoes, sweetpotatoes and mushrooms. 7/ Excludes potatoes and sweetpotatoes. 8/ Includes strawberries. 9/ Includes maple sugar and sirup. 10/ Miscellaneous livestock and poultry, and livestock and poultry products, beeswax, horses and mules.

APPENDIX J

--Cash receipts: Percentage distribution by commodity groups, Maryland, 1969-71

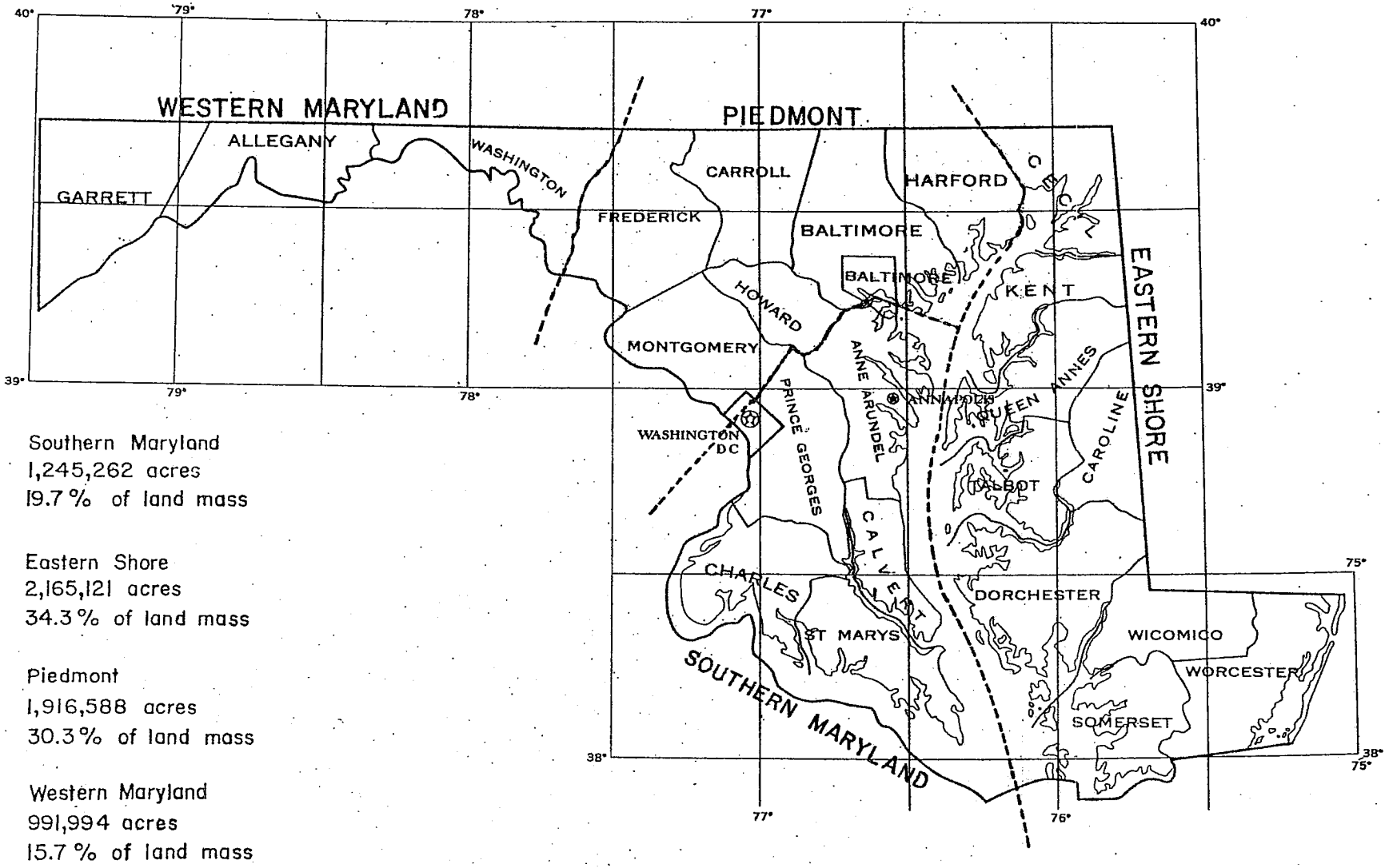
Commodity	Percent of total cash receipts		
	1969 1/	1970 1/	1971 2/
Broilers	28.7	26.7	25.7
Dairy products	24.3	25.1	25.7
Field crops 3/	14.1	15.9	16.1
Cattle and calves	7.2	7.8	8.4
Tobacco	5.7	5.3	5.7
Vegetables and melons 4/	4.8	4.6	4.3
Greenhouse and nursery	3.2	3.2	3.4
Eggs	3.5	3.5	3.0
Hogs	2.8	2.5	2.6
Fruit 5/	1.7	1.7	1.7
Government payments	2.2	2.0	1.6
Other products 6/	1.8	1.7	1.8
	100.0	100.0	100.0

1/ Revised. 2/ Preliminary. 3/ Includes potatoes, sweetpotatoes and mushrooms. Excludes tobacco. 4/ Excludes potatoes and sweetpotatoes. 5/ Includes strawberries. 6/ Forest products, turkeys, farm chickens, sheep and lambs, honey, beeswax, wool and miscellaneous livestock and poultry and livestock and poultry products.

U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

THE REGIONS OF MARYLAND



Southern Maryland
1,245,262 acres
19.7 % of land mass

Eastern Shore
2,165,121 acres
34.3 % of land mass

Piedmont
1,916,588 acres
30.3 % of land mass

Western Maryland
991,994 acres
15.7 % of land mass

Total land mass 6,318,965 acres

SOURCE: U.S.G.S. National Atlas Base

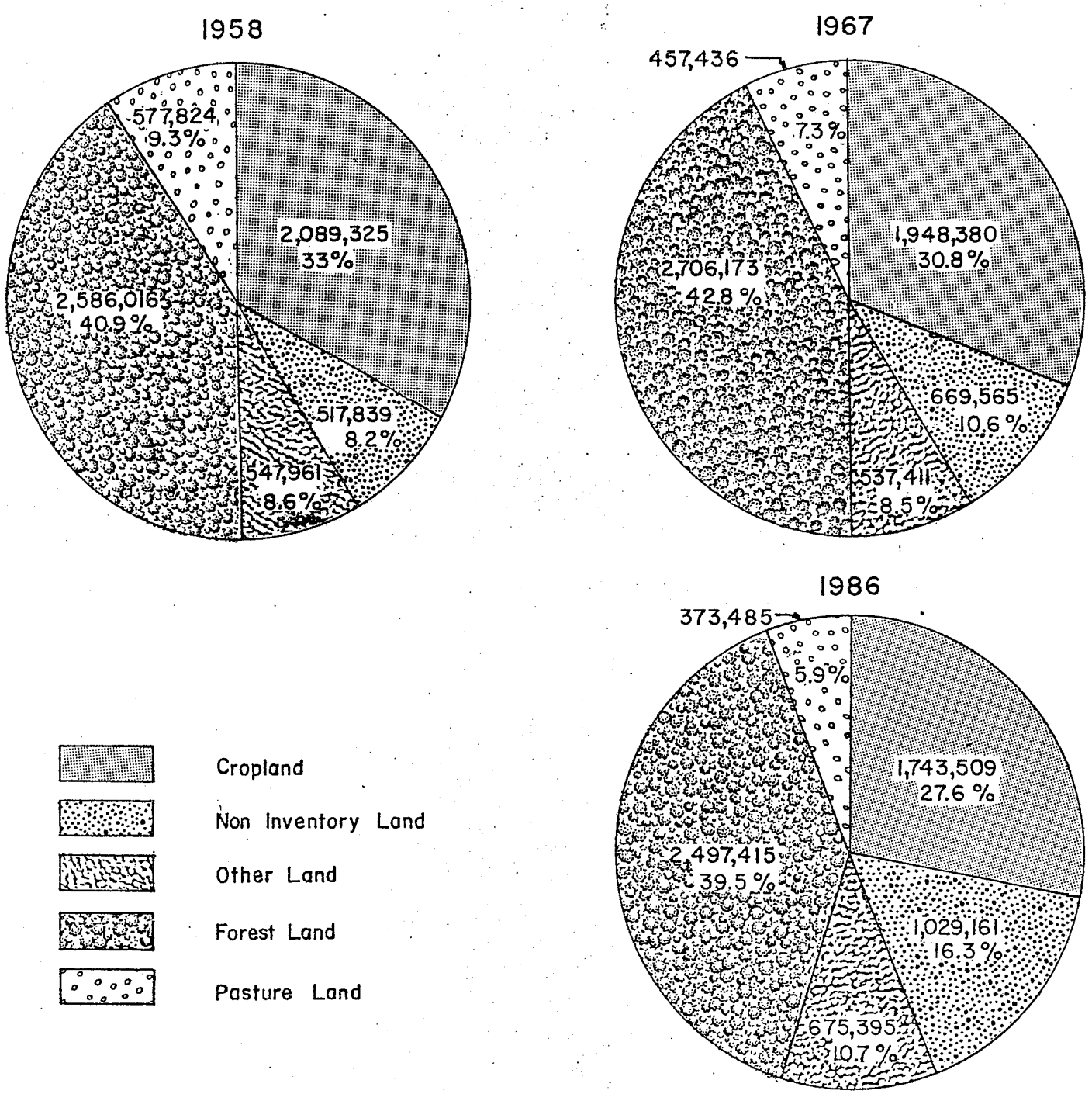
FROM CNI

1968

H-L-120

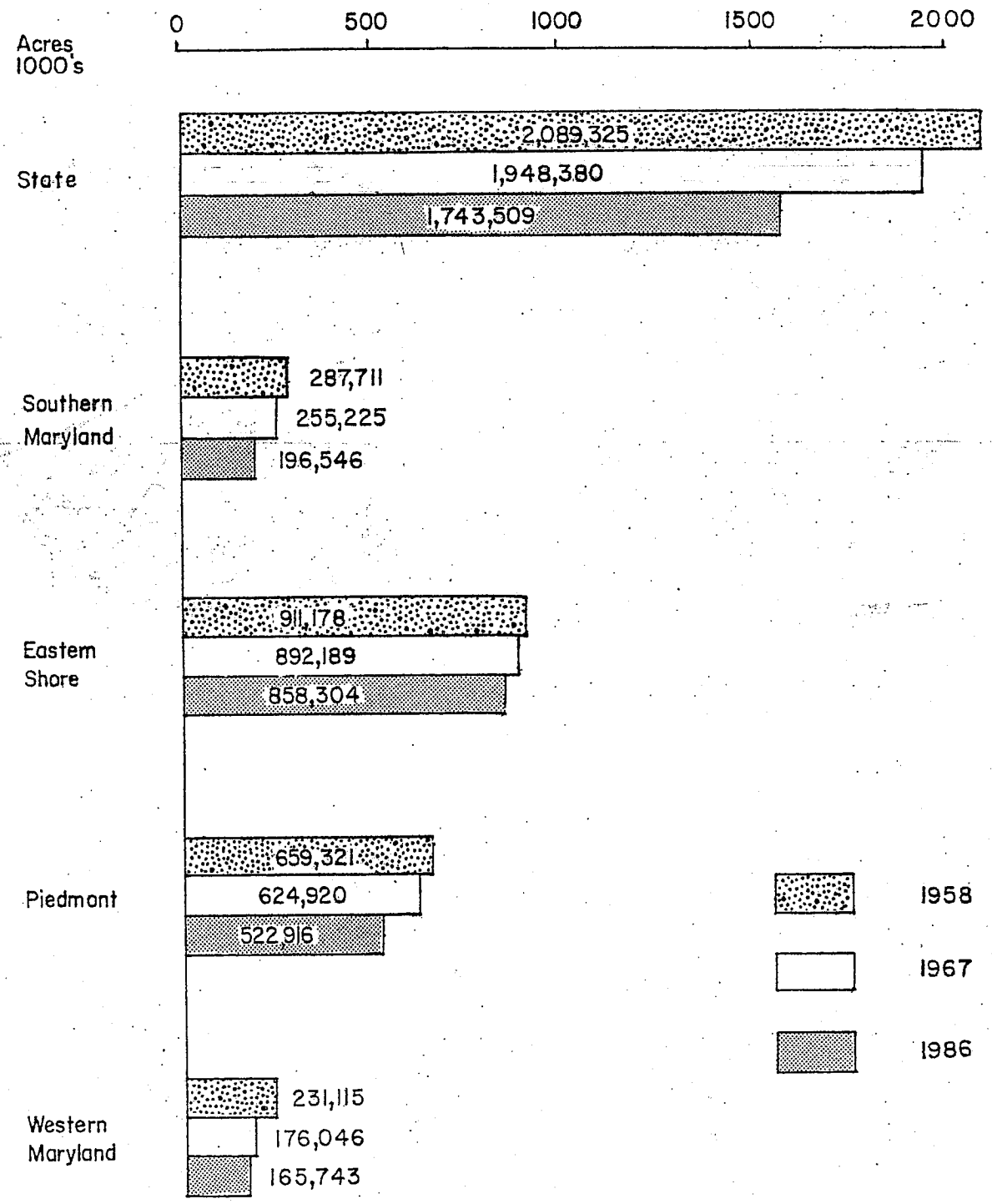
MARYLAND LAND USE 1958 – 1967
WITH PROJECTIONS TO 1986, (ACRES)

MARYLAND
6,318,965



FROM CNI

CROPLAND FOR MARYLAND, AND BY REGIONS, 1958 — 1967, WITH PROJECTIONS TO 1986



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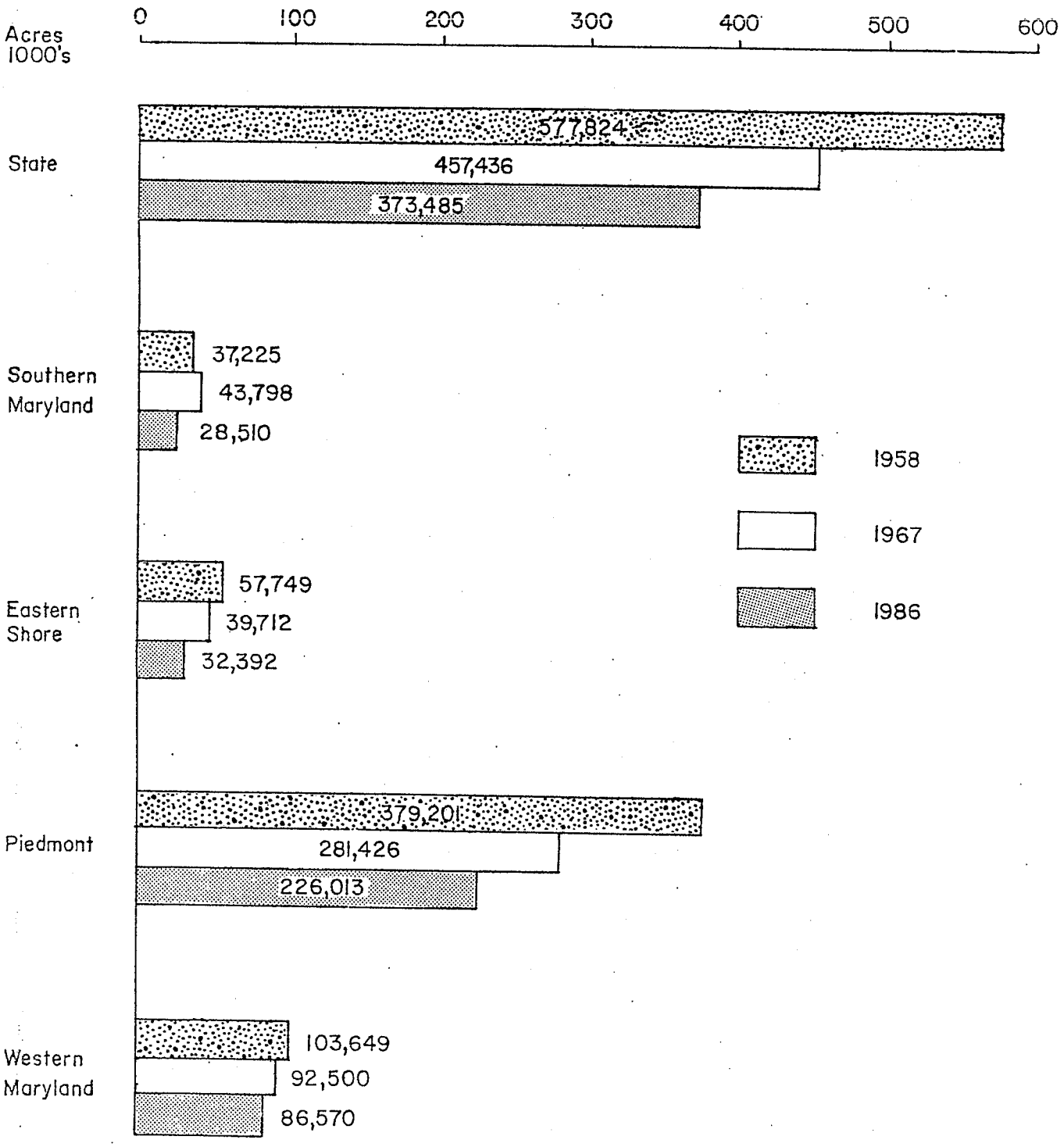
PASTURE FOR MARYLAND, AND BY REGIONS, 1958 — 1967, WITH PROJECTIONS TO 1986



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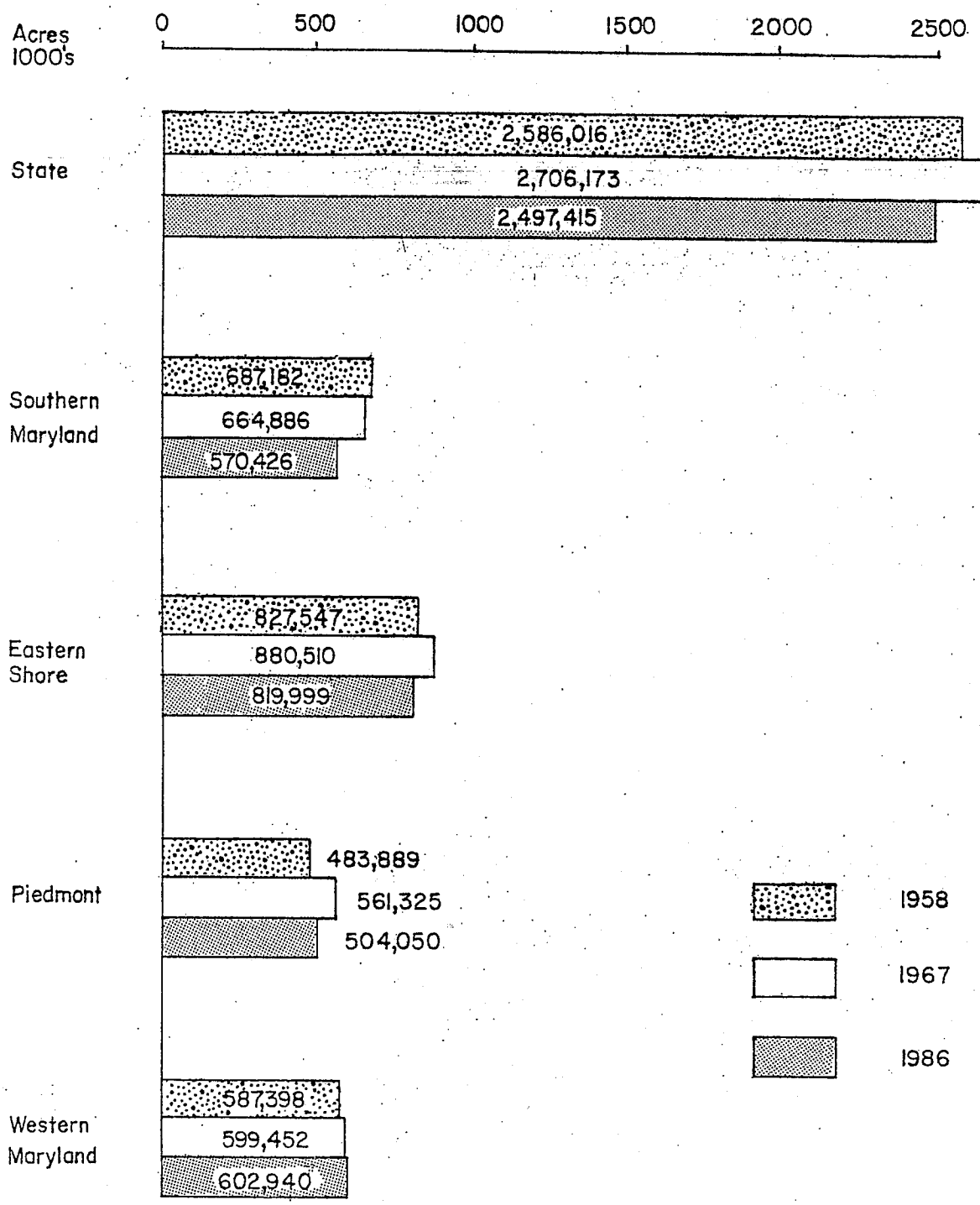
FOREST LAND FOR MARYLAND, AND BY REGIONS, 1958 — 1967, WITH PROJECTIONS TO 1986



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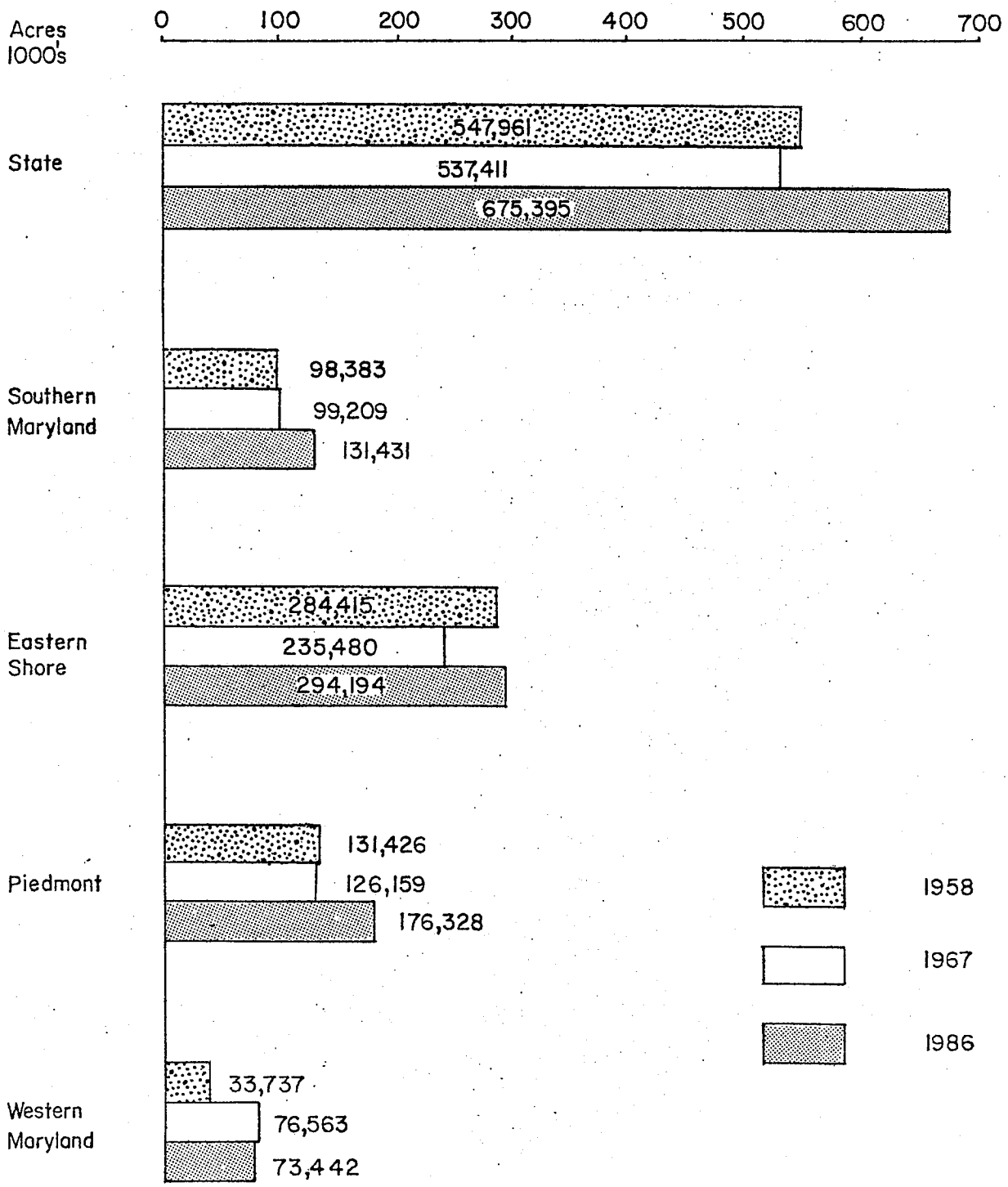
OTHER LAND FOR MARYLAND, AND BY REGIONS, 1958 — 1967, WITH PROJECTIONS TO 1986



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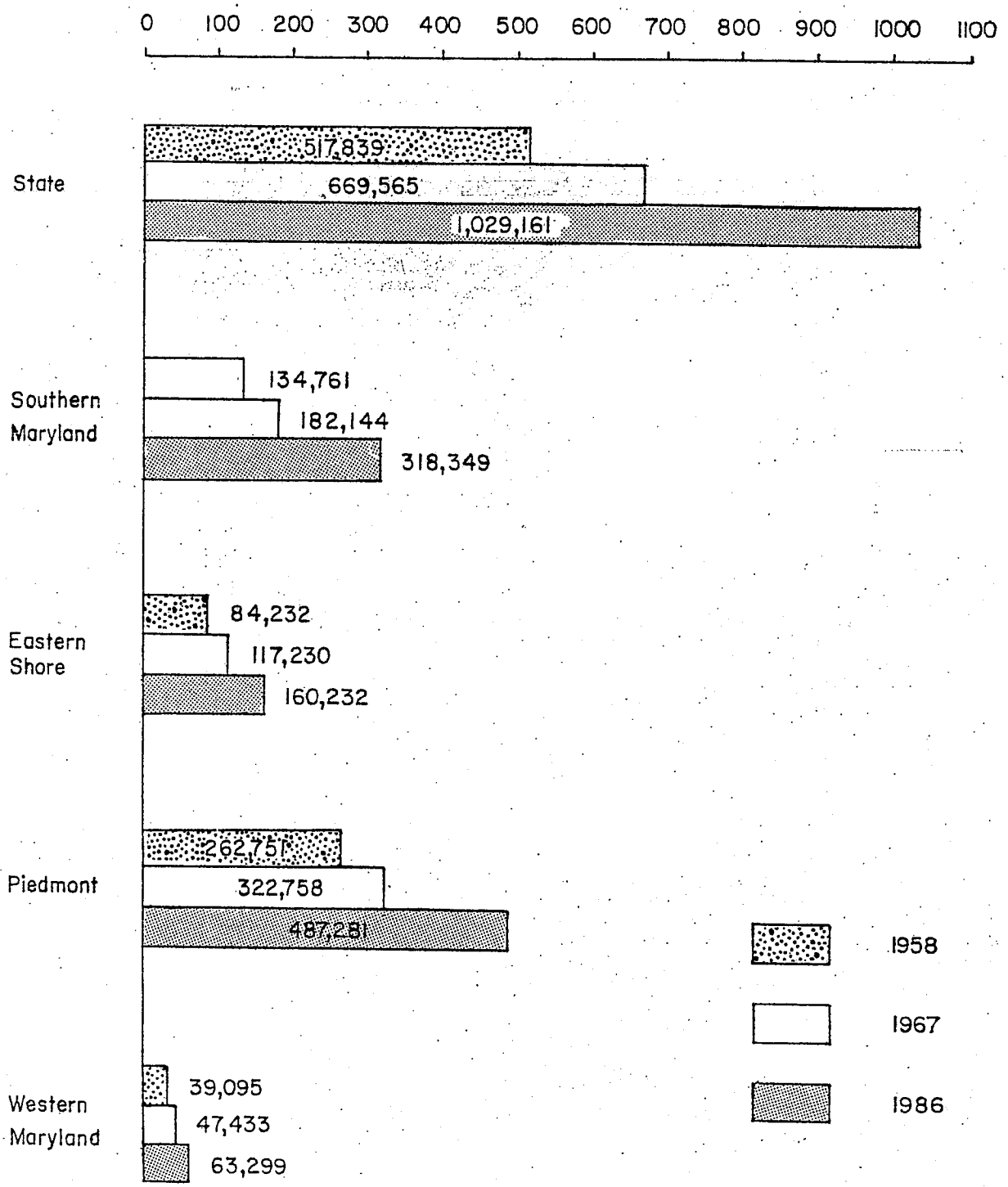
NON INVENTORY LAND FOR MARYLAND AND BY REGIONS, 1958 — 1967 WITH PROJECTIONS TO 1986



From CNI

APPENDIX R

THE LAND-CAPABILITY CLASSIFICATION

The standard soil-survey map shows the different kinds of soil that are significant and their location in relation to other features of the landscape. These maps are intended to meet the needs of users with widely different problems and, therefore, contain considerable detail to show important basic soil differences.

The information on the soil map must be explained in a way that has meaning to the user. These explanations are called interpretations. The capability classification is one of a number of interpretative groupings made primarily for agricultural purposes. As with all interpretative groupings, the capability classification begins with the individual soil-mapping units, which are building stones of the system. In this classification the arable soils are grouped according to their potentialities and limitations for sustained production of the common cultivated crops that do not require specialized site conditioning or site treatment. Nonarable soils (soils unsuitable for longtime sustained use for cultivated crops) are grouped according to their potentialities and limitations for the production of permanent vegetation and according to their risks of soil damage if mismanaged.

The individual mapping units on soil maps show the location and extent of the different kinds of soil. Mapping units permit making the greatest number of precise statements about the individual soils and predictions about their use and management. The capability grouping of soils is designed to (1) help landowners and others use and interpret the soil maps, (2) introduce users to the detail of the soil map itself, and (3) make possible broad generalizations based on soil potentialities, management problems, and limitations in use.

The capability classification provides three major categories: (1) capability unit, (2) capability subclass, and (3) capability class. The first category is the capability unit, which is a grouping of soils that have about the same influence on production and responses to systems of management of common cultivated crops and pasture plants. Soils in any one capability unit are adapted to the same kinds of common cultivated and pasture plants and require similar alternative systems of management for these crops. Longtime estimated yields of adapted crops for individual soils within the unit under comparable management do not vary more than about 25 per cent.

The second category in the classification is the subclass. This is a grouping of capability units having similar kinds of limitations and hazards. Four kinds of limitations or hazards are recognized: (1) Erosion hazard, (2) wetness, (3) root zone limitations, and (4) climate. Climate is not considered to be a limiting hazard in Maryland.

The third and broadest category in the capability classification places all the soils in eight capability classes. The risks of soil damage or limitations in use become progressively greater from class I to class VIII. Soils

in the first four classes are capable under good management of producing adapted plants, such as forest trees, and the common cultivated field crops and pasture plants. Soils in classes V, VI, and VII are suited to the use of adapted native plants. Some soils in classes V and VI are also capable of producing specialized crops, such as certain fruits and ornamentals, and even field and vegetable crops under highly intensive management involving elaborate practices for soil and water conservation. Soils in class VIII do not return on site benefits for inputs of management of crops, grasses or trees.

The grouping of soils into capability units, subclasses, and classes, is done primarily on the basis of their capability to produce common cultivated crops and pasture plants without deterioration over a long period. To express suitability of the soils for woodland use, the soil-mapping units are grouped into woodland suitability groups.

In this Inventory, soils are summarized only according to capability class and capability subclass, but not by capability units.

CAPABILITY CLASSES

Land suited for cultivation and other uses

Class I - Soils in class I have a few limitations that restrict their use. Soils in this class are suited to a wide range of plants and may be used safely for cultivated crops, pasture, range, woodland, and wildlife. The soils are nearly level,1/ and erosion hazard (wind or water) is low. They are deep, generally well drained, and easily worked. They hold water well and are either fairly well supplied with plant nutrients or highly responsive to inputs of fertilizer.

The soils in class I are not subject to damaging overflow. They are productive and suited for intensive cropping. The local climate must be favorable for growing many of the common field crops.

Soils that are wet and have slowly or very slowly permeable subsoils are not placed in class I.

Soils in class I that are used for crops need ordinary management practices to maintain productivity--both soil fertility and soil structure. Such practices may include the use of one or more of the following: fertilizers and lime, cover and green-manure crops, conservation of crop residues and animal manures, and sequences of adapted crops.

1/ Some rapidly permeable soils in class I may have gentle slopes.

Class II - Soils in class II have some limitations that reduce the choice of plants or require moderate conservation practices.

Soils in this class require careful soil management, including conservation practices, to prevent deterioration or to improve air and water relations when the soils are cultivated. The limitations are few and the practices are easy to apply. The soils may be used for cultivated crops, pasture, range, woodland, or for wildlife food and cover.

Limitations of soils in class II may include, singly or in combination, the effects of (1) gentle slopes; (2) moderate susceptibility to wind or water erosion, or moderate adverse effects of past erosion; (3) less than ideal soil depth; (4) somewhat unfavorable soil structure and workability; (5) occasional damaging overflow; (6) wetness correctable by drainage but existing permanently as moderate limitation.

The soils in this class provide the farm operator less latitude in the choice of either crops or management practices than soils in class I. They may also require special soil-conserving cropping systems, soil conservation practices, water-control devices, or tillage methods when used for cultivated crops.

For example, deep soils of this class with gentle slopes that are subject to moderate erosion when cultivated may need one of the following practices or some combination of two or more: terracing, stripcropping, contour tillage, crop rotations that include grasses and legumes, vegetated water disposal areas, cover on green manure crops, stubble mulching, fertilizers, manure and lime. The exact combinations of practices vary from place to place, depending on the characteristics of the soil, the local climate, and the farming system.

Class III - Soils in class III have severe limitations that reduce the choice of plants or require special conservation practices, or both.

Soils in class III have more restrictions than those in class II, and when used for cultivated crops, the conservation practices are usually more difficult to apply and to maintain. They may be used for cultivated crops, pasture, woodland, range, or for wildlife food and cover.

Limitations of soils in class III restrict the amount of clean cultivation; timing of planting, tillage, and harvesting; choice of crops; or a combination of the following: (1) moderately steep slopes; (2) high susceptibility to water and wind erosion or severe adverse effects of past erosion; (3) frequent overflow accompanied by some crop damage; (4) very slow permeability of the subsoil; (5) wetness or some continuing waterlogging after drainage; (6) shallow depths to bedrock, hardpan, fragipan, or claypan that limits the rooting zone and the water storage; (7) low moisture-holding capacity; (8) low fertility not easily corrected.

When cultivated, many of the wet, slowly permeable but nearly level soils in class III require a drainage system and a cropping system that maintains or improves the structure and tilth of soil. To prevent puddling and to improve permeability, it is commonly necessary to supply organic material to such soils and to avoid working them when they are wet. Each distinctive kind of soil in class III has one or more alternative combinations of use and practices required for safe use, but the number of practical alternatives for average farmers is less than for soils in class II.

Class IV - Soils in class IV have very severe limitations that restrict the choice of plants, require very careful management, or both.

The restrictions in use for these soils are greater than those in class III, and the choice of plants is more limited. When these soils are cultivated, more careful management is required and conservation practices are more difficult to apply and maintain. Soils in class IV may be used for crops, pasture, woodland, range, or for wildlife food and cover.

Soils in class IV may be well suited to only two or three of the common crops or the amount of harvest produced may be low in relation to inputs over a long period. Use for cultivated crops is limited as a result of the effects of one or more permanent features such as (1) steep slopes, (2) severe susceptibility to water or wind erosion, (3) severe effects of past erosion, (4) shallow soils, (5) low moisture-holding capacity, (6) frequent overflows accompanied by severe crops damage or (7) excessive wetness with continuing hazard of waterlogging after drainage.

Many sloping soils in class IV in humid regions are suited for occasional but not regular cultivation. Some of the poorly drained, nearly level soils placed in class IV are not subject to erosion but are poorly suited to intertilled crops because of the time required for the soil to dry out in the spring and because of low productivity for cultivated crops. Some soils in class IV are well suited to one or more of the special crops, such as fruits and ornamental trees and shrubs, but this suitability itself is not sufficient to place a soil in class IV.

Land limited in use--generally not suited for cultivation

Class V - Soils in class V have little or no erosion hazard but have other limitations that are impractical to remove, that limit their use largely to pasture, range, woodland, or wildlife food and cover.

Soils in this class have limitations that restrict the kind of plants that can be grown and that prevent normal tillage of cultivated crops. They are nearly level but some are wet, are frequently overflowed by streams, are stony, or have some combination of these limitations. Examples of class V are (1) soils of the bottom lands subject to frequent overflow that prevent the normal production of cultivated crops, (2) level or nearly level stony or rocky soils, and (3) ponded areas where drainage for cultivated crops is not feasible but where soils are suitable for grasses or trees. Because of

these limitations cultivation of the common crops is not feasible but pastures can be improved and benefits from proper management can be expected.

Class VI - Soils in class VI have severe limitations that make them generally unsuited for cultivation and limit their use largely to pasture or range, woodland, or wildlife food and cover.

Physical conditions of soils placed in class VI are such that it is practical to apply range or pasture improvements, if needed, such as seeding, liming, fertilizing, and water control with contour furrows, drainage, ditches, diversions, or water spreaders. Soils in class VI have continuing limitations that cannot be corrected, such as (1) steep slopes, (2) severe erosion hazards, (3) effects of past erosion, (4) stoniness, (5) shallow rooting zone, (6) excessive wetness or overflow or (7) low-moisture capacity. Due to one or more of these limitations these soils are not generally suited for cultivated crops. But they may be used for pasture, range, woodland, or wildlife cover or some combination of these.

Some soils in class VI can be safely used for the common crops provided unusually intensive management is used. Some of the soils in this class are also adapted to special crops such as sodded orchards, blueberries, etc., requiring soil conditions unlike those demanded by the common crops. Depending upon soil features and local climate, the soils may be well or poorly suited to woodlands.

Class VII - Soils in class VII have very severe limitations that make them unsuited for cultivation and that restrict their use largely to grazing, woodland, or wildlife.

Physical conditions of soils in class VII are such that it is impractical to apply such pasture or range improvements as seeding, liming, fertilizing, and water-control measures such as contour furrows, ditches, diversions, or water spreaders. Soil restrictions are more severe than those in class VI because of one or more continuing limitations that cannot be corrected, such as very steep slopes, erosion, shallow soil, stones, wet soil, or other limitations that make them unsuited for common cultivated crops. They can be used safely for grazing or woodland or wildlife food and cover, or some combination of these under proper management.

Depending upon the soil characteristics and local climate, soils in this class may be well or poorly suited to woodland. They are not suited to any of the common cultivated crops; in unusual instances, some soils in this class may be used for special crops under unusual management practices. Some areas of class VII may need seeding or planting to protect the soil and to prevent damage to adjoining areas.

Class VIII - Soils and landforms in class VIII have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, water supply, or aesthetic purposes.

Soils and landforms in class VIII cannot be expected to return significant on site benefits from management for crops, grasses, or trees, although benefits from wildlife use, watershed protection, or recreation may be possible.

Limitations that cannot be corrected may result from the effects of one or more of the following: (1) erosion or erosion hazard, (2) wet soil, (3) stones, or (4) low moisture capacity, and (5) salinity.

Rock outcrop, sandy beaches, river wash, tidal marshes, mine tailings, and other nearly barren lands are included in class VIII. It may be necessary to give protection and management for plant growth to soils and landforms in class VIII in order to protect other more valuable soils, to control water, or for wildlife or aesthetic reasons.

Capability Subclasses

Subclasses are groups of capability units within classes that have the same kinds of dominant limitations for agricultural use as a result of soil and climate. Some soils are subject to erosion if they are not protected, while others are naturally wet and must be drained if crops are to be grown. Some soils are shallow or droughty, or have other soil deficiencies. The three kinds of limitations recognized in Maryland at the subclass level are: risks of erosion, designated by the symbol (e); wetness, drainage, or overflow (w); root-zone limitations (s); the class and subclass provide the map user information about both the degree and kind of limitation. Subclasses are not recognized in capability class I.

Subclass (e) erosion is made up of soils where the susceptibility to erosion is the dominant problem or hazard in their use. Erosion susceptibility and past erosion damage are the major soil factors for placing soils in this subclass.

Subclass (w) excess water is made up of soils where excess water is the dominant hazard or limitation on their use. Poor soil drainage, wetness, high water table, and overflow are the criteria for determining which soils belong in this subclass.

Subclass (s) soil limitations in the root zone is made up of soils where root-zone limitations are the dominant hazard or limitations in their use. These limitations are the results of such factors as shallow soils, stoniness, low moisture-holding capacity, low fertility difficult to correct.

Subclass (c) climate limitation is made up of soils where the climate (temperature and lack of moisture) is the only major hazard or limitation in their use. Subclass (c) is not used in Maryland.

Limitations imposed by erosion, excess water, shallow soils, stones, low moisture-holding capacity, can be modified or partially overcome. The

dominant kind of limitation or hazard to the use of the land determines the assignment of capability units to the (e), (w), and (s) subclasses.

Where two kinds of limitation which can be modified or corrected are essentially equal, the subclasses have the following priority: (e), (w) and (s). For example, we need to group a few soils in humid regions that have both an erosion hazard and an excess water hazard; with them the (e) takes precedence over the (w); with soils having both an excess water limitation and a root-zone limitation the (w) takes precedence over the (s).

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Before any person may install a water supply, sewerage or refuse disposal system for public use, he must obtain a permit from the State Department of Health, Annotated Code of Maryland, Article 43, § 394 (1971 Replacement Volume). Moreover, before a permit may be issued for a landfill refuse disposal system under § 394, there must be a public hearing on the application. Annotated Code of Maryland, Article 43, § 394A(1971 Replacement Volume).

The hearing, however, required in connection with a land fill permit could be consolidated with other land use hearings even if that hearing was held under the auspices of the Department of Natural Resources. Section 394A of Article 43 requires only that a hearing be held. An executive order directing that such a hearing take place in conjunction with other hearings required for State land use permits would not be "inconsistent" with existing law. Therefore, while the Governor could not transfer the permit issuing function of the State Department of Health and Mental Hygiene to a land use agency created with the Department of Natural Resources without submitting the executive order to the Legislature, he could consolidate any hearing required in connection with such permits.

General county plans for water supply systems, sewerage systems, and solid waste disposal must also be submitted to the Department of Health. Annotated Code of Maryland, Article 43, § 387(b) (1972 Supplement). Section 378(b) also requires that a public hearing be held on these plans. Before the State Department of Health can approve any county plan, it must submit that plan to the "Department of Natural Resources which shall advise the Department of matters pertaining to water allocation, adequacy of industrial waste treatment and the effect of proposed withdrawals and water discharges on the waters of the State." Annotated Code of Maryland, Article 43, § 387C(c)(vii). This section, in effect, provides for consolidated procedures for acquiring county sewerage system approval and water appropriation and discharge permits. Additionally, it should be noted that the State Department of Health is authorized to adopt regulations with respect to the approval of county plans, including regulations which "[r]equire consideration of the present and future density of population, size of the lots, contour of the land, porosity and absorbency of the soil, ground water and variation therein ... " Annotated Code of Maryland, Article 43, § 387C(c)(iv).

Water and Sewerage

While the April Memorandum (pp. 9-10) did outline the general authority of the Department of Health and Mental Hygiene in this area, certain points bear added emphasis since this authority is a most important one.

In Article 43, the Code expressly grants to the Department of Health and Mental Hygiene broad regulatory powers, including, for example, the adoption

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of regulations which "[p]rovide for control, limitation or prohibition of installing or using individual or community water supply or sewerage systems", § 387C(c)(i), and which "[a]uthorize the Department to approve or disapprove county plans ... in whole or in part", § 387C(c)(ix). Furthermore, applicants for any building permits or subdivision approvals must submit to the approving authority evidence that water supply and sewerage systems and solid waste acceptance facilities are in conformance with the county plan. § 387C(d) 3-4. State and local zoning ordinances, subdivision regulations, building codes, or other laws or regulations, are not deemed limited or superseded by § 387C only if, and only to the extent that, they establish standards which afford greater protection to the community's health, safety and welfare. § 387C(f). The Code also requires that before land platted for subdivisions is put on the market or any permanent building erected, a plat must be filed, together with proposals for supplying water and sewerage service, with the Department for its review. § 396.

Other provisions relating to the authority of the Department include § 1F of Art. 43 which provides, inter alia, that the Secretary of Health and Mental Hygiene is to "formulate and promulgate ... rules, regulations and standards for the purposes of promoting and guiding the development of the environmental, physical and men tal hygiene services of the State." In addition, the Department is required "to make rules and regulations not inconsistent with law regulating the character and location of plumbing, drainage, water supply, disposal of sewage, garbage or other waste material and offensive trades." §2. In § 228B of Art. 43, the Department is given the authority to restrict designated areas of the waters of the State, in the event of pollution, to the taking or storing of shellfish.

Air Quality Control

The Department of Health assumes general responsibility for the jurisdiction over "emissions into the air and ambient air quality." Art. 43, § 690(b). The Department is to prepare and submit to the Secretary of Health and Mental Hygiene, for his approval, regulations establishing standards for each of several designated areas. § 693(b). The Department is charged with enforcement of the standards, utilizing local services "to the maximum extent possible". § 693(c). Certain additional powers are provided for in the event of an air pollution emergency. § 696. Specific factors to be considered by the Board in the formulation of rules and regulations include "the residential, commercial, or industrial nature of the area affected, zoning, ... environmental conditions, population density and topography of any area concerned". § 697(c). Provisions relating to violation notices, corrective orders and hearings are set out in § 698 and to violations and enforcement in §§ 701 and 703.

Significently, the law also provides that the Department may require by regulation that, before any person builds, alters, operates, uses, etc., "any article, machine, equipment or other contrivence specified by such regulation the use of which may cause emissions into the air, such person shall obtain a permit to do so or be required to register with the Department." § 706.

Chapter 709, Acts 1973 (Senate Bill 798), effective July 1, 1973, amended the subtitle "Air Quality Control" to "Air Quality and Noise Control". While this amendment establishes noise control as a policy of the State, and requires the Department, with Board approval, to prepare regulations establishing standards for noise abatement, proposed regulations are ineffective unless approved by joint resolution of the General Assembly. § 693(b).

APPENDIX T

The Department of Natural Resources

The Department of Natural Resources, either directly or indirectly, has jurisdiction over most State land use permits and licenses. Sediment control, wetlands regulation, water appropriation, and water discharge are administered by the Department of Natural Resources. The Department of Forests and Parks, the Water Resources Administration, the Maryland Geological Survey, the Maryland State Board of Well Drillers and the Bureau of Mines, all of which have certain land use authority, are also under the jurisdiction of the Department of Natural Resources. Annotated Code of Maryland, Article 41, § 233 (1972 Supplement).

The Secretary of Natural Resources has broad discretion with respect to the programs and activities administered by the Department. He may transfer any function or activity within his jurisdiction to another agency or department within his jurisdiction "for the purpose of increasing the efficiency and economy of natural resources administionin the State." Annotated Code of Maryland, Article 41 § 234(c). He may also transfer to his own office any function carried out by one of the departments or agencies of the Department of Natural Resources. This authority includes the right to transfer staff, funds and equipment associated with the transferred activity. Id.

The Governor's authority to organize the principal departments of the State together with the Secretary of Natural Resources' broad power to reorganize the Department of Natural Resources provides the necessary authority for establishing a land use board and for transferring to that board the regulatory activities carried out by the different boards, departments and agencies within the Department of Natural Resources. Because such a reorganization is authorized by existing statutes, it could be accomplished without legislative approval.

Sediment Control

The Maryland Code presently provides for extensive sediment controls

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which are administered by the several soil conservation districts and municipal and county governments. Section 106 of Article 96A of the Annotated Code of Maryland (1972 Supplement) provides that any land clearing, soil movement, or construction must be done in accordance with written recommendations of the appropriate soil conservation district. And in Prince George's and Montgomery counties all utility construction must be approved by the Washington Suburban Sanitary Commission. Annotated Code of Maryland, § 106(b), Article 96A (1964 Replacement Volume and 1972 Supplement). Similarly, under § 108 of Article 96A the counties and municipalities are authorized to issue building and grading permits. This section further provides that "[n]o grading or building permit shall be issued until the developer submits a grading and sediment control plan approved by the appropriate soil conservation district; and the developer certifies that all land clearing, construction and development will be done pursuant to said plan." Id. of § 108(a). The soil conservation districts, counties and muncipal governments regulating sediment control are independent, autonomous governmental entities. Annotated Code of Maryland, Article 66C §95. They are not part of the executive branch of the State government and not subject to executive orders. The Governor could not, therefore, by executive order transfer the sediment control authority exercised by these governmental bodies.

Although sediment control is regulated by the soil conservation districts and local governments, it should be noted that the Secretary of Natural Resources has authority to supervise major land alterations (Article 96A, § 105):

> In order to protect the natural resources of the State, the Secretary of Natural Resources is directed to adopt criteria and procedures to be used by the counties and the local soil conservation districts to implement soil and shore erosion control programs. Such procedures may provide for the review and approval of major grading, sediment and erosion control plans by the Department of Natural Resources. (Emphasis supplied.)

Pursuant to this language, the Secretary of Natural Resources could require major land development projects to obtain Department approval. The only apparent limitation on the Secretary's authority is that he may review only grading, sediment and erosion control plans which he can reasonably deem to be "major."

Assuming that the Secretary did promulgate rules and procedures for

reviewing major land developments, approval for such plans could be transferred to a board which reviewed other applications involving land use. Since the authority to promulgate these review procedures is dicretionary, the Secretary or the Governor could authorize any existing board to exercise this function or create a new board for such a purpose.

Wetlands

The use of Maryland's wetlands, both public and private, are regulated by the State. Under § 721 of Article 66C of the Annotated Code of Maryland (1970 Replacement Volume) all dredging or filling of State Wetlands is prohibited without a license issued by the Board of Public Works. However, the Governor would be barred from transferring the Board's authority to issue wetlands permits to another board or agency. Except where the Governor submits an order to the General Assembly within the first ten days of the session for approval, all executive orders must be consistent with existing law. Under present law, the authority to issue permits for public wetlands is delegated to the Board of Public Works. A transfer of that authority to another board or agency would be inconsistent with existing law, as the General Assembly has made no provision for this transfer.

Although the power to grant the permit cannot be transferred, the hearings associated with the issuance of a State wetland's license could be consolidated into a general State land use permit hearing. Only the Board of Public Works is authorized to issue the actual wetland's license. They do so, however, on the recommendation of the Secretary of Natural Resources. In preparing his recommendation, the Secretary of Natural Resources is to consult with interested federal, State and local agencies and take such evidence and hold such hearings as he thinks advisable. Annotated Code of Maryland, Article 66C § 721. Since the authority to conduct hearings is left to the discretion of the Secretary, the Secretary or the Governor could direct that the wetlands issue be heard at the same hearing in which other State issues involving the use of this property are to be considered.

Section 721 provides that the Secretary of Natural Resources may hold hearings as he deems advisable. This section further provides that the "Board of Public Works after a hearing in the local subdivision affected shall then decide if issuance of the license is in the best interests of the State ... " (Emphasis added.) Unlike the Secretary's hearing, this local hearing appears to be mandatory. Nevertheless, there is no reason why the Secretary could not direct that his hearing, together with other hearings required in connection with the use of this land under his jurisdiction, be consolidated with the local hearing. This would eliminate multiple hearing while at the same time fulfilling all of the requirements set forth in § 721.

Pursuant to § 726 of Article 66C, every person, who proposes to conduct an activity upon private wetlands not permitted by the rules and regulations promulgated by the Secretary of Natural Resources, is required to obtain a permit. In connection with the application for a permit, the Secretary is required to hold a hearing "in the county where the land is located on such application." Annotated Code of Maryland, Article 66C § 726. The hearing required by this section could be part of a consolidated hearing involving all state land use permits involving the same property so long as the consolidated hearing is held in the county where the land is located. This consolidation can be accomplished by executive order without submission to the General Assembly pursuant to § 234(c) of Article 41 which permits the Secretary of the Department of Natural Resources to transfer functions and activities.

Power Plants

Section 5A of Article 66C provides for a consolidated hearing for purposes of water discharge and wetlands permits where the applicant is seeking to construct a power plant. Upon receipt of notification from the Public Service Commission that an application has been filed for a certificate of public necessity for the construction of a power plant involving the use of private wetlands and/or the appropriation of State waters, the Secretary Natural Resources is to consider that application as an application for a permit for dredging and filling wetlands and appropriating or using State waters. Section 5A directs the Secretary to "complete such further studies and investigations concerning, but not limited to, the necessity for dredging and filling at the proposed plant site and the water appropriation or use ... " Annotated Code of Maryland, Article 66C § 54. The result of these studies, together with a recommendation that a certificate be granted, denied, or conditionally granted are presented by the Secretary of Natural Resources or his designees at the hearing held by Public Service Commission as required by Article 78." Annotated Code of Maryland, Article 66C, § 54.

In addition to consolidated procedures for wetland and water discharge permits, § 54B of Article 78 provides that all interested parties, including the Department of Natural Resources, Department of Health and Mental Hygiene, Department of Transportation, and Department of State Planning, may present information at the hearing required for a certificate of public necessity and recommend certain action based on the hearing. In effect, this section establishes a consolidated procedure for obtaining State permits necessary for the construction of a power plant.

Use of State Waters

Any person who appropriates or uses State waters or who begins to construct any "plant, building or structure which may appropriate or use any waters of the State" must first obtain a permit from the Department of Natural Resources. Annotated Code of Maryland, Article 96A, § 11. In addition, under Section 26(b) a permit is required for the following activities involving the disposal of water or waters into the waters of the State:

> (1) the discharge of any waters or wastewaters into the waters of the State in violation of regulations promulgated by the Department;
>
> (2) the construction, installation, modification, extension, alteration or operation of any disposal system or part thereof;
>
> (3) the increase in volume, temperature or strength of any wastes in excess of the permissive discharges specified under any existing permit;
>
> (4) the construction, installation, or operation of any industrial, commercial or other establishment or any modification thereof or addition thereto, the operation of which would cause an increase in the discharge of wastes into the waters of the State or otherwise alter the physical, chemical, or biological properties of any waters of the State in any manner not already authorized;
>
> (5) the construction or use of any new outlet for the discharge of any waters into the waters of the State.

Annotated Code of Maryland, Article 96A, § 26(b).

The Department of Natural Resources is responsible for the issuance of the permits required by §§ 11 and 26(b). Since this is an activity carried out by the Department, the Secretary or the Governor could direct, pursuant to their general authority to recognize the Department of Natural Resources, that this authority be delegated to a land use board or other single agency within the Department of Natural Resources.

Section 15 of Article 96A of the Code requires the Department of Natural Resources to hold a public hearing in connection with the issuance of a permit for the appropriation or use of State waters under § 11. So long as this hearing is actually held, the Governor could, consistent with existing law, consolidate this hearing with other State land use hearings.

The Code does not specifically provide for hearings in connection with the issuance of water discharge permits. Section 25 provides, however, that the Department of Natural Resources may hold such hearings as it deems necessary. Annotated Code of Maryland, Article 96A, § 25(j). Any hearing in connection with the issuance of water discharge permits, then, are totally discretionary and as such subject to consolidation by executive order.

Use of State Waters and Floodplains

As noted in the April Memorandum any person, including the State or any political subdivision of the State, who appropriates or uses or who begins to construct "any plant, building or structure which may appropriate or use any waters of the State" must, with few exceptions, first obtain a permit therefor from the Department of Natural Resources. Annotated Code of Maryland, Art. 96A, § 11. The burden is upon the applicant to "provide proof satisfactory to the Department that issuance of such permit will not violate Maryland's water quality standards or jeopardize the natural resources of the State." Id. § 12 further requires a permit in order, inter alia, to construct, repair or make any change in any reservoir, dam or "waterway obstruction", or to make any change in the course, current, or cross section of any stream or body of water, "except the tidal waters". (The quoted exception was to have been eliminated by Chapter 416, Acts 1967, but this amendment was since declared unconstitutional by reason of a title defect. However, we do understand that the Commission to Revise the Annotated Code proposes to correct the error in its revision of Article 66C.) § 13 contains specific rules pertaining to the Potomac River which require permits for conduits, cables or other like devices. Finally, "[t]he Department, by regulation, may designate interjurisdictional watersheds in which all impoundment proposals shall be subject to review and approval by the Department for standards relating to safety and flood control." § 12(c).

In order to fully appreciate the true extent of this regulatory power, we wish here to emphasize that the term "waters of the State", as used in Article 96A, is defined to include "[t]he flood plains of free-flowing waters as determined by the Department on the basis of the 50-year flood frequency." Consequently, we find that the extensive regulations promulgated by the Department are applicable to floodplains as well as streams and other bodies of water. The validity of these regulations has more than once been upheld by the courts.

Pollution Abatement

Together with the discussion of the use of State waters, the April Memorandum also reviewed (pp. 7-8) the Department's authority over activities involving the discharge or disposal of any waters or wastewaters into the waters of the State. Art. 96A, §§ 23 et seq., subtitle "Pollution Abatement". § 24(e) of Art. 96A expressly provides that "the floodplain of free-flowing waters on the basis of a fifty (50) year flood frequency" is within the meaning of the term "waters of the State", as used in this subtitle. Consequently, construction and other activities in floodplain areas may also be regulated under the State's Pollution Abatement Law and the standards and regulations promulgated thereunder.

Chapter 739, Acts 1973 (Senate Bill 1075) has substantially revised this subtitle, effective July 1, 1973. The new amendment provides, inter alia, for additional proscriptions and sanctions applicable to the creation of unlawful pollution conditions together with a general expansion of the Water Resources Administration's authority in this area. § 26, as amended, will now provide as follows:

> "(a) Except as in compliance with the provisions of this subtitle, and any rules and regulations promulgated hereunder, it is unlawful for any person to discharge any pollutant into the waters of the State.
>
> "(b) Notwithstanding subsection (a) of this section, any person intending to construct, install, modify, extend, alter, or operate any industrial commercial or recreational facility or disposal system or any State-owned treatment facility or any other outlet, or establishment, the operation of which would result in or be capable of causing a discharge of pollutants or an increase in the discharge of pollutants into the waters of the State, must obtain a permit from the Administration. The Administration may require a discharge permit from any other activity by rule or regulation." (Emphasis added.)

Mining

Section 662 of Article 66C provides that any person who "mines coal by the open pit or strip method" must obtain a permit from the Bureau of Mines. Since the Bureau of Mines is under the jurisdiction of the Department of Natural Resources, the authority to issue these permits could be transferred from the Bureau to a land use board or other agency within the Department pursuant to the Secretary's authority to transfer functions and activities within the Department.

Presently no statute requires a hearing in connection with the issuance of a mining permit, although the Bureau does have power to promulgate rules and regulations. Because there is no statutory hearing requirement, any hearing conducted pursuant to the Bureau's rule making power could, by executive order, be consolidated with other hearings required with respect to the use of the particular tract of land.

Gas and Oil

Section 677 of Article 66C requires any person who drills for gas or oil to first obtain a permit from the Maryland Geological Survey. Like the Bureau of Mines, this agency is under the Department of Natural Resources and therefore an executive order could transfer its authority to issue permits to a land use board or other agency within the Department of Natural Resources.

Section 681(e) of Article 66C provides that "[o]n the filing of a petition concerning any matter within the jurisdiction of the [Maryland Geological Survey, it] shall promptly fix a date for a hearing thereon ..." Section 681(e) further provides that if the hearing relates to a permit for a well, the hearing is to be held inthe county or city where the well is to be located. Under the authority of the Governor and Secretary to reorganize the department, this hearing could be consolidated with other hearings involving other land use permits so long as the hearing takes place inthe county or city in which the well is to be located.

Woodlands and Forests

The administration of the State's forests, timberlands and woodlands is vested in the Department of Forests and Parks. Annotated Code of Maryland, Article 66C § 390. The Department of Forests and Parks is authorized to promulgate rules and regulations to conserve, develop, and improve the State woodlands. In addition, the State is divided into several district forestry boards which are responsible for the local administration of the State's woodlands, including the enforcement of the rules and regulations promulgated by the Department of Forests and Parks.

Under § 396 of Article 66C, any person who wishes to construct a sawmill or other plant for the manufacture of lumber or other products, must obtain a license from the Department of Forests and Parks. In addition, § 396 requires every person who wishes to cut any woodlands to apply to the district forestry board in which the woodlands are located for approval. Upon receipt of the application, the district forestry board is to examine the woodland and to advise in writing the owner of the woodland, or his agent, as to the most practical and satisfactory method of cutting the woodland covered by the application and to give assent to do the cutting found best adopted thereto." Annotated Code of Maryland 66C § 396(b).

Because the Department of Forests and Parks is within the Department of Natural Resources, the Secretary has the authority to transfer the activities presently exercised by this Department to another agency.

There is no provision inthe present law for a hearing with respect to a permit for the construction of a sawmill, but the Director of the Department of Forests and Parks is authorized to provide for one if desired. Annotated Code of Maryland, Article 66C § 391. If a hearing were provided through the Departments rule making power, this hearing could be consolidated with other hearings required for other state land use permits.

As noted, an owner or operator of forest property is required to submit a plan for the management and development of his property to the district forestry board for approval. An appeal from the board's decision may be taken to the Department of Forests and Parks and from there to the appropriate circuit court. The initial administrative decisions could be transferred to another agency within the Department of Natural Resources so long as the applicant has the same right of appeal to the circuit court. Nor is there any reason why the hearing associated with such applications could not be consolidated with other hearings involving land use permits.